SEPTEMBER 5, 1942

Railway Age

Founded in 1856

No tonnage reduction necessary in cold weather with . . .

TIMKEN BEARING EQUIPPED CARS

M5621

We quote below extract from a test report by a large railroad of an official test of 70 ton capacity Timken Bearing Equipped freight cars against similar cars equipped with friction bearings.

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GENEVA COLLEGE

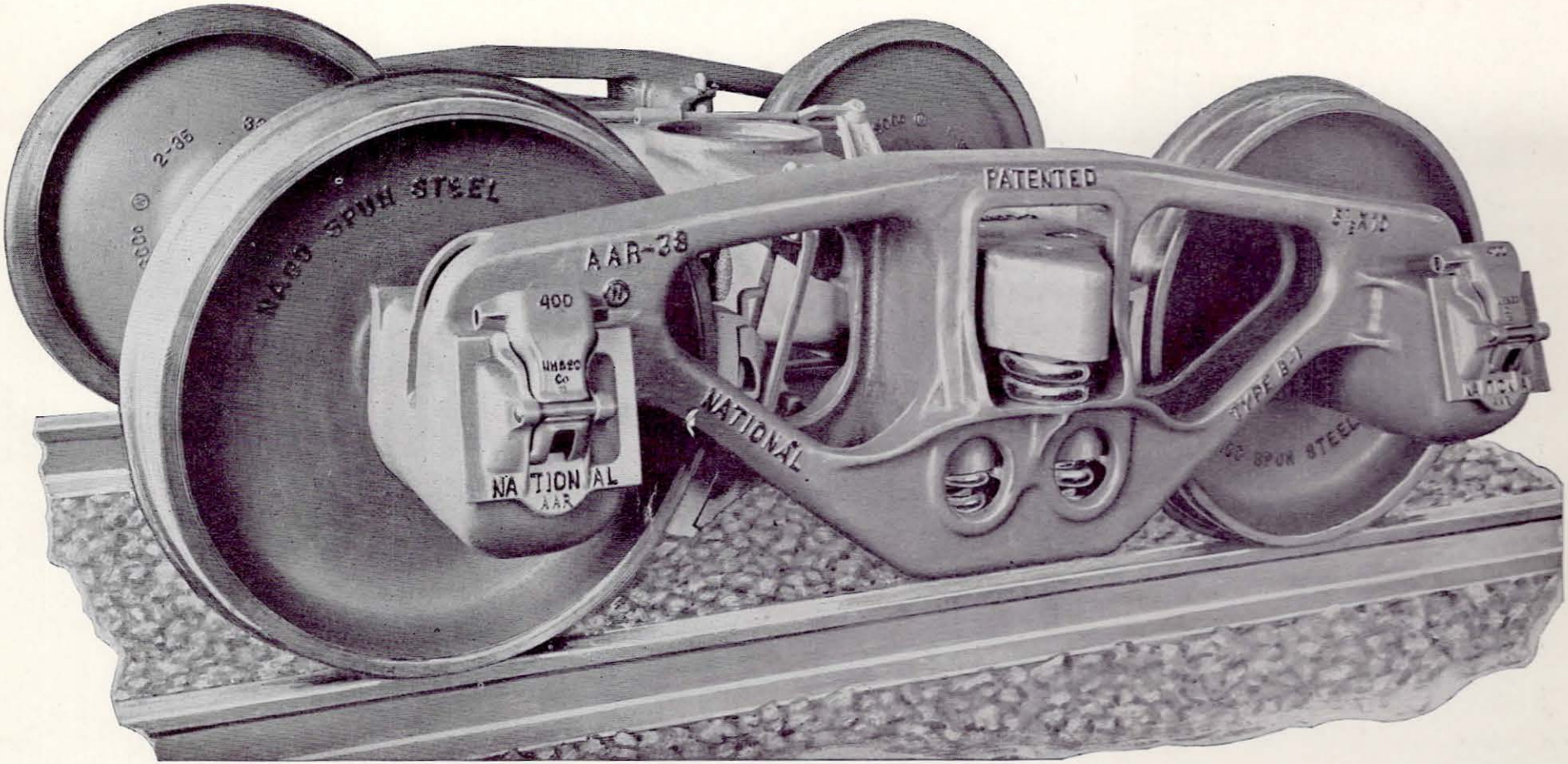
"With the winter temperatures at which these tests were run 32 to 18 degrees Fahrenheit, the maximum resistance of the Timken cars was from 35 to 23 percent less than that of the standard cars, and the constant speed resistance was from 18 to 4 percent less.

"For some reason the maximum resistance of the Timken cars was lower in winter tests than in the summer tests. The constant speed resistance was the same. The implications are that no matter how low the temperatures the resistance of the Timken roller bearing cars will be no higher in winter than in summer and, therefore, with such cars there should be no reason for winter reduction in tonnage ratings."

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

TIMKEN
TRADE-MARK REG. U. S. PAT. OFF.
TAPERED ROLLER BEARINGS

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 113, No. 10



SMOOTHER RIDING and SAFETY at Higher Freight Speeds

NATIONAL MALLEABLE AND STEEL CASTINGS COMPANY

GENERAL OFFICES: CLEVELAND, OHIO

Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco ● Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill.

Canadian Representatives, Railway & Power Engineering Corporation, Ltd., Toronto and Montreal

Wanted urgently:

STEEL SCRAP

Shortage of steel scrap is threatening the war-production program.

If ships, planes, tanks and guns are to be produced in the volume needed to win the war, the country's steel-making facilities must operate at full capacity. But the plain truth is that the steel scrap to support continued capacity operations is not available, and not in sight.

United Effort Will Do the Job

Thanks to the construction of new blast furnaces, the deficiency is being partly made up by using more pig iron in steel-making. But tremendous quantities of additional scrap must be found within the crucial next few months.

Actually, many thousands of tons of steel scrap are potentially available *if only they can be gathered in.* This scrap, needed so urgently in the war effort, is scattered through the industrial plants, mines and railways, the farms and the homes of the nation. The problem is to collect it and get it moving to the steel mills. Everyone must help. If everyone will, there will be scrap to meet the needs of the war-production program.

Make a checkup in your plant or warehouse, or any other property you own or manage, and in your home.

Have any odds and ends of steel or iron that may be lying around collected. If you have any obsolete or idle equipment, machinery, or parts—anything that's made of iron or steel and isn't really needed—junk it, and get the scrap moving toward the steel mills.

How to Put Your Scrap to Work

Some iron or steel now lying rusting and forgotten around your property may help to save the lives of Americans in the battle areas. Gather up every possible bit of iron and steel scrap. Sell it to a local junk dealer, or get in touch with your local scrap salvage committee. Put your scrap to work for your country. It's needed, now!

BETHLEHEM STEEL COMPANY

BETHLEHEM STEEL

YOUR BONDS

— may be inside

Your investment in War Savings Bonds and Stamps enables our Government to feed its armed forces. Our fighting men deserve the best — prime meats, fresh vegetables, dairy products, dextrose—rich energy foods—all the things that build stamina and staying power for defense and attack.

Very possibly, the next General American Refrigerator car you see will be carrying such foods paid for by you. Like the 55,000 special cars in the GATX Fleet, these transcontinental iceboxes work night and day toward one goal... Victory.

GATX
GENERAL AMERICAN

KEEP 'EM ROLLING! Freight cars — and particularly special commodity carriers such as refrigerator and tank cars — have a vital war job. They must be loaded, unloaded, kept moving with all possible speed. Delays may cost lives!

GENERAL AMERICAN TRANSPORTATION

CORPORATION

Chicago

Builders and Suppliers of Railroad Freight Cars

Dearborn's latest contribution to greater locomotive efficiency . . .

an ANTI-FOAM that does not saponify contains no castor oil

Based on unique organic compounds evolved from Dearborn research, Dearborn's latest development in anti-foam retains many of the advantages and eliminates the disadvantages of compounds in which castor oil is used. This new material is substantially non-saponifiable and non-hydrolyzable in alkaline boiler waters. Being non-saponifiable, it does not form residual soap to create a foaming boiler in sections where water does not require treatment. During layover periods at terminals or on schedules calling for locomotive operation over several divisions, it is not necessary to change the water in the boiler or in the tender tank, or to use the new anti-foam continuously. It has an effective life many times that of any available organic anti-foam material providing the greatest possible flexibility of locomotive operation.

Dearborn new anti-foam is available in powder, paste, liquid, and brick for manual or wayside application. The newest of these is powder. In powder form it is suitable for direct application to the tender tank without previous mixing. A special manufacturing process super-pulverizes and mixes the chemicals to assure the finest possible dispersion of all active ingredients without sifting out, and it also assures their retention in the most effective form throughout a large volume of water without agglomeration.

The Dearborn Engineer in your territory is equipped to demonstrate its effectiveness and explain its numerous advantages.

DEARBORN CHEMICAL COMPANY
310 South Michigan Avenue, Chicago, Illinois
205 E. 42nd St., New York 2454 Dundas St., West, Toronto
807-15 Mateo St., Los Angeles

Dearborn Complete Service

Organic Process

Entirely new, substantially non-saponifiable, and non-hydrolyzable which gives greatly increased life and flexibility of handling over castor oil. In following forms: POWDER, PASTE, LIQUID, BRICK.

Inorganic Process

A unique and exclusively different wayside treatment attack by which Dearborn contracts to take over the responsibility for foam control treatment for an entire railroad system, or a division, which may present an especially stubborn problem.

History leading up to today's achievement

The history of Dearborn anti-foam dates from 1904 when the young chemists in the laboratory developed the first practical "anti-foam" compound. ● Then along came Dearborn Stabilizer Finishing Treatment with automatic proportioning equipment at the individual water stations to eliminate the inaccuracies and inconveniences of manual application in the tender tank. Precipitation was prevented in boiler water distribution and feed lines . . . foaming was controlled to permit higher boiler water concentrations, and intercrystalline corrosion protective agents were provided. ● Through experience and research, chemical compounds and the methods of administering them continued to progress. As the laboratory grew, more chemists with specialized training were brought in. The inspiration of the new specialists, tempered by the experience and stability of Dearborn, worked wonderfully. ● All of the really "new discoveries" resulting from experiments were utilized, and all of those which were a "re-discovery" of some which had been "tried and found wanting" were rejected. Today... the Dearborn new anti-foam, formulated without castor oil, is the culminating achievement. ● And so the age-old problem of foaming is a progressive study with Dearborn...it's not one susceptible of casual discovery and development. As new conditions arise in water or in the operating functions of locomotives, you may be sure that Dearborn Laboratories will know about them and have research under way.

Dearborn
TRADE MARK REGISTERED

SCIENTIFIC WATER TREATMENT

Some "lucky" roads prepared for War as early as 1935!

WHEN THEY PUT COR-TEN TO WORK...

they gave their equipment the bigger payload capacity, the lower operating costs, and the ability to stay on the job, so all-important in wartime operation today.

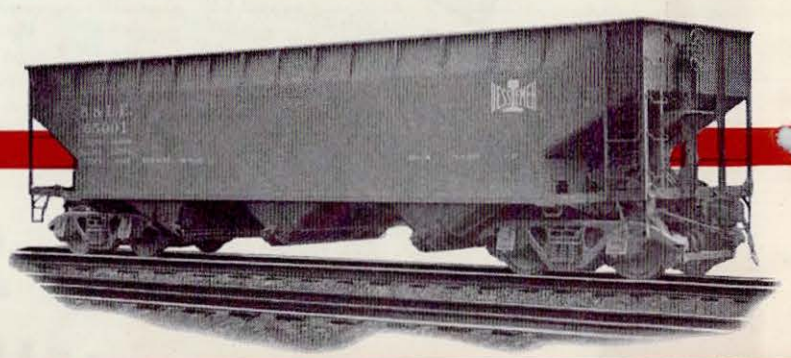
THE original users of COR-TEN construction had in mind no thought of a second World War when they built freight cars lighter with U·S·S COR-TEN. Their prime purpose was to rid their equipment of the costly drag of excess weight. But they builded better than they knew.

By showing their faith in lightweight construction they helped put into service the more than 43,000 COR-TEN cars now in use. And the whole railroad industry has benefited.

These cars, able to carry 2 to 5 tons more payload each, now provide a total of 110,000 tons additional freight carrying capacity—have added to our hard-pressed transportation system the equivalent of 2,200 *extra* cars, that cost not a penny to build and that operate for exactly nothing.

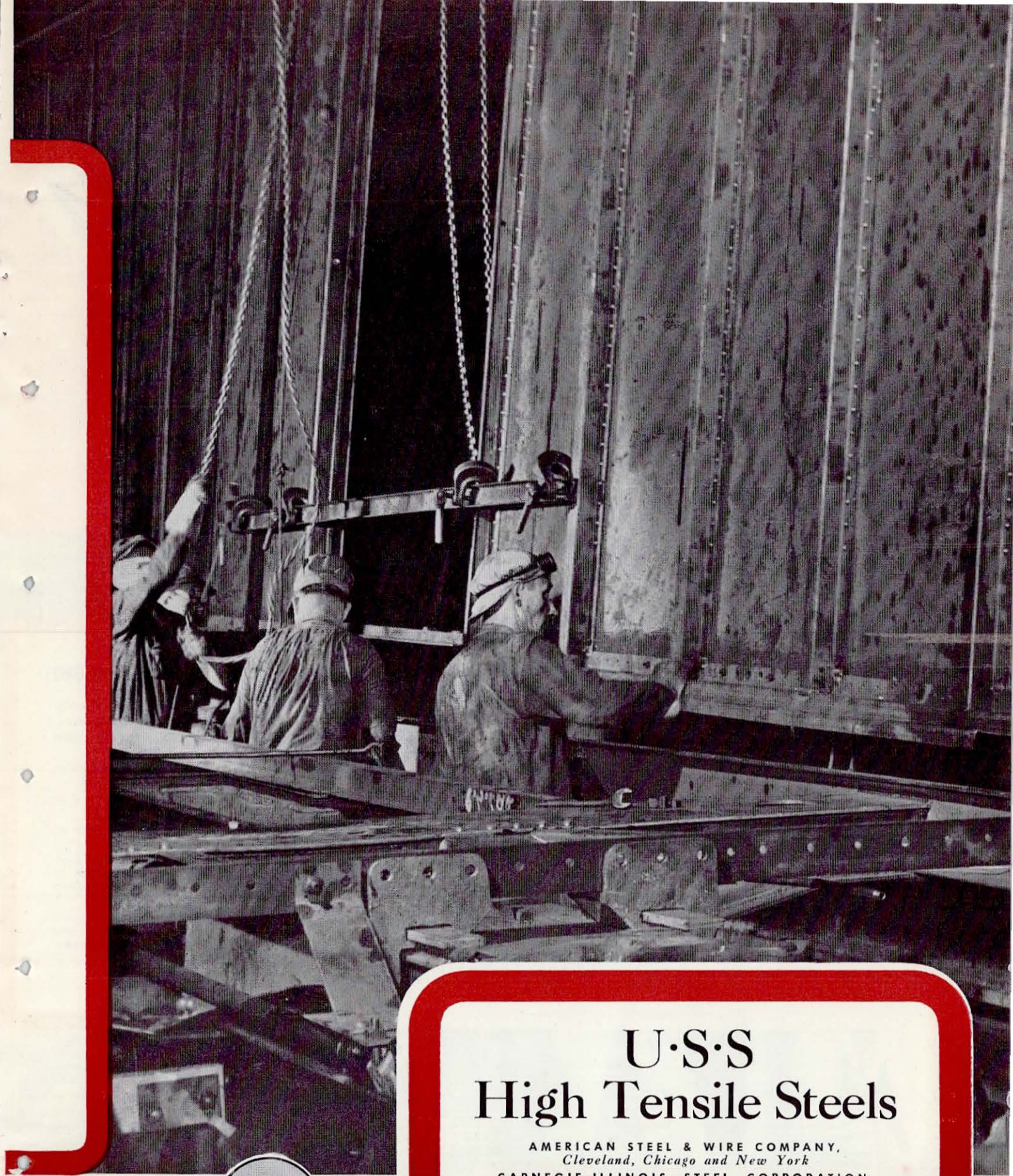
And what is equally important, this big-capacity COR-TEN equipment can be loaded to the guards. It's new and modern to roll safely at passenger train speeds. And it's tough and strong to keep on rolling. It is just the kind of equipment you would build if you were planning for wartime traffic.

Today, war has first call on COR-TEN. Every pound being produced goes directly into absolutely essential war equipment. But when Victory is won, COR-TEN will be back — to save weight, increase strength, reduce operating cost and prolong the life of freight equipment. In the meantime, let us show you how COR-TEN construction can be most economically included in your planning for the future.



6,000 COR-TEN HOPPER CARS WEIGH 10,000 LB. LESS EACH. These big-capacity, hard-working 70- and 90-ton hoppers can carry 5 tons more payload, and do. They save $90 per car per year in operating cost. Their condition after six years of hard service indicates that they will last as long as heavier copper-steel construction before needing heavy repairs.

UNITED STATES



U·S·S
High Tensile Steels

AMERICAN STEEL & WIRE COMPANY,
Cleveland, Chicago and New York

CARNEGIE-ILLINOIS STEEL CORPORATION,
Pittsburgh and Chicago

COLUMBIA STEEL COMPANY, *San Francisco*

NATIONAL TUBE COMPANY, *Pittsburgh*

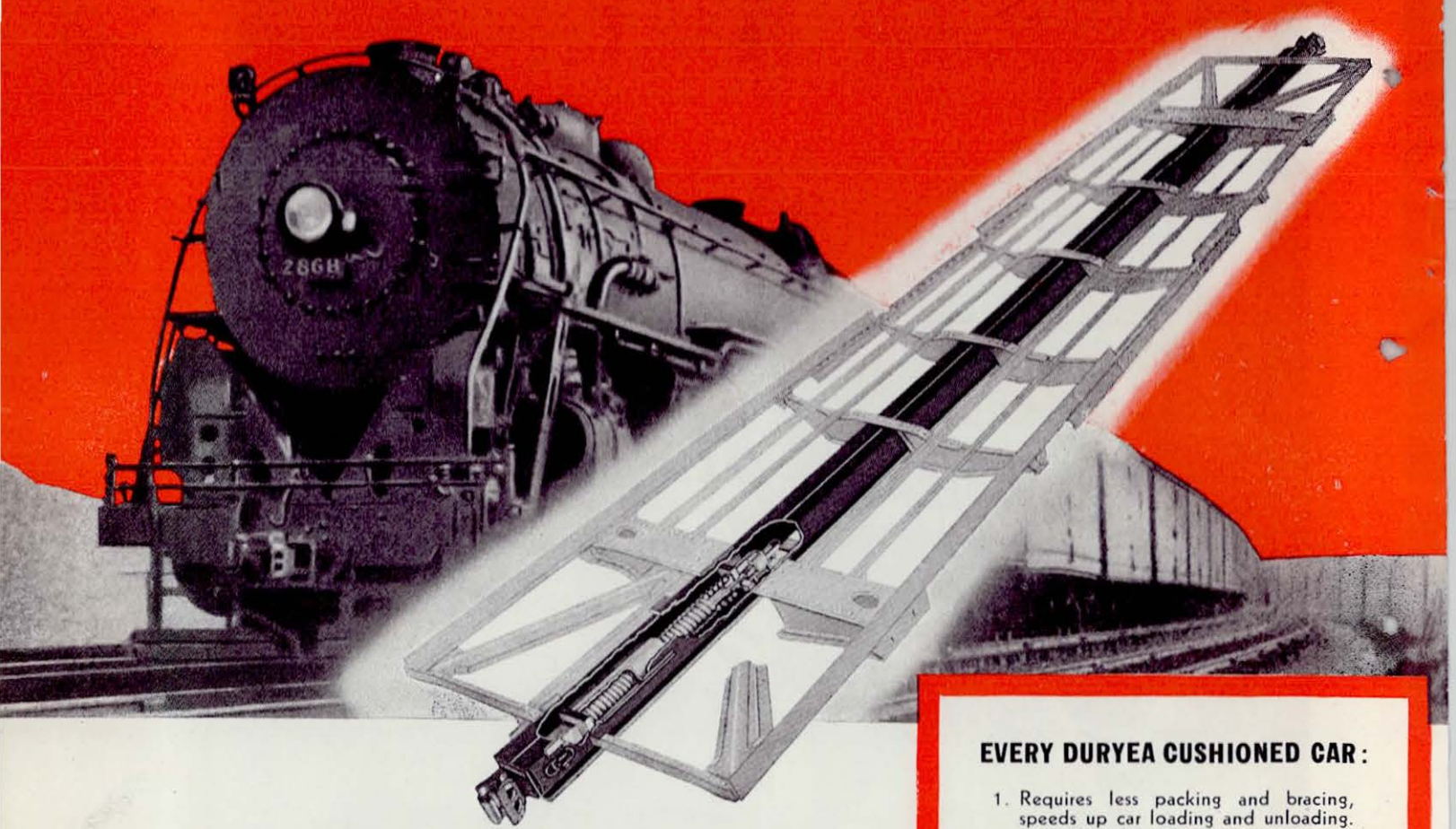
TENNESSEE COAL, IRON & RAILROAD COMPANY,
Birmingham

Scully Steel Products Company, Chicago, *Warehouse Distributors*
United States Steel Export Company, New York

USS

STEEL

DURYEA *Cushion* UNDERFRAME Meets the Needs of Total War . . . with Total Shockproof Protection



War freightloads are heavier, faster-moving, more vulnerable to the jolts of starting, stopping and switching. That's why Duryea-Cushioned Cars, whenever available, are preferred for vital shipments.

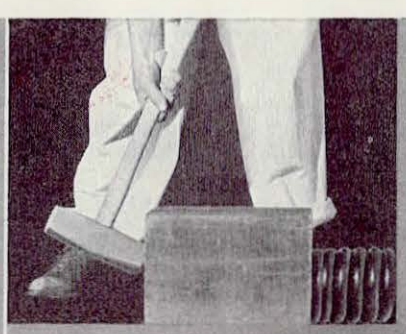
In the greatest test of all—WAR — the superior shockproofing power of Duryea Cushion Gear becomes daily more evident. The exclusive floating center sills and giant cushioning springs save packing costs, maintenance time and lading on every trip. Depend upon it, when unlimited car building is resumed, Duryea's wartime performance will not be forgotten. Railroads and shippers alike will benefit through the widespread recognition of the proven efficiency of Duryea Cushioning.

Write for illustrated booklet

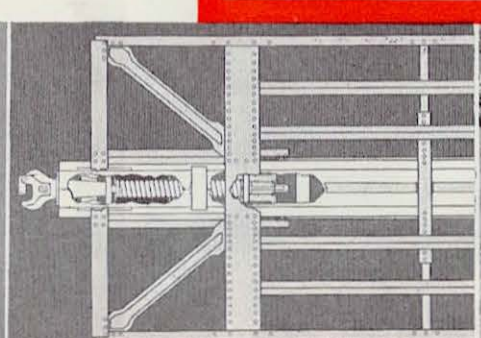
O. C. DURYEA CORPORATION
30 Rockefeller Plaza, New York, N. Y.
Field Building, Chicago, Ill.

EVERY DURYEA CUSHIONED CAR:

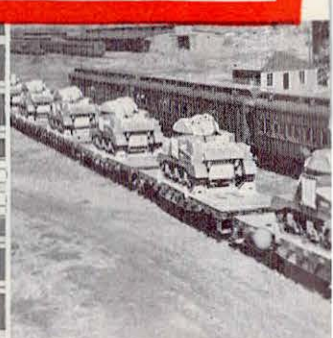
1. Requires less packing and bracing, speeds up car loading and unloading.
2. Gives shockproof protection to vital war shipments.
3. Permits faster handling, higher speeds—Duryea-Cushioned Cars can "take it."
4. Avoids delays and tie-ups due to draft gear failure.
5. Reduces maintenance cost and time on every part of the car.
6. Reduces slack to pre-determined ideal. (Excessive slack is one big cause of damage in today's long, heavily loaded trains.)
7. Reduces cast steel required as compared with conventional friction draft gear underframe and draft gear replacements.
8. Keeps cars off the cripple track—keeps 'em rolling!



HOW DURYEA CUSHIONING lessens shock. Left: Block of wood (sill) against wall will crack when hit with sledge. Right: With spring allowing block (sill) to slide, even hardest blows won't cause damage.



PHANTOM VIEW shows how springs and floating center sills cushion each wallop, protecting car and contents. Duryea Cushion Gear lasts entire life of car.



RAILROAD MEN: Duryea-Cushioning reduces maintenance costs and damage claims; ***now costs no more than conventional construction.*** Plan for the future—investigate Duryea now.

DURYEA *Cushion* UNDERFRAME FOR FREIGHT CARS

THE MODERN SAFEGUARD FOR SHOCKPROOF SHIPPING

AMERICAN STEEL FOUNDRIES

transfers its "ASF Roller Bearing Unit" Business

to SKF Industries, Inc.

ANNOUNCEMENT

For some years roller bearings made by SKF INDUSTRIES, INC. have been standard equipment for "A.S.F. Roller Bearing Units" manufactured by AMERICAN STEEL FOUNDRIES.

In view of the advisability of eliminating duplication of sales, engineering and servicing effort and desiring to continue the best possible service to the railroads, AMERICAN STEEL FOUNDRIES has transferred its entire Roller Bearing Unit business to SKF INDUSTRIES, INC.

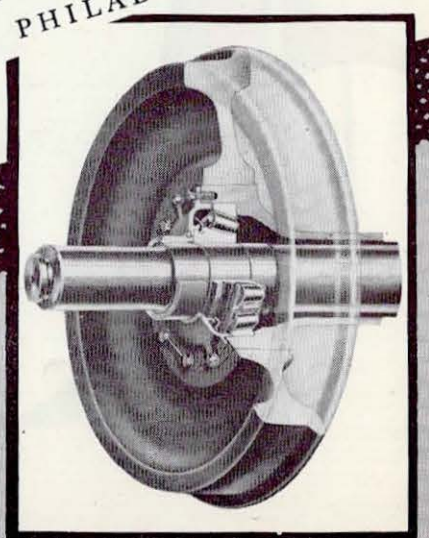
On and after September 1, 1942, SKF becomes the exclusive supplier of these Units and parts, takes over all engineering and servicing, and assumes full responsibility for guarantees.

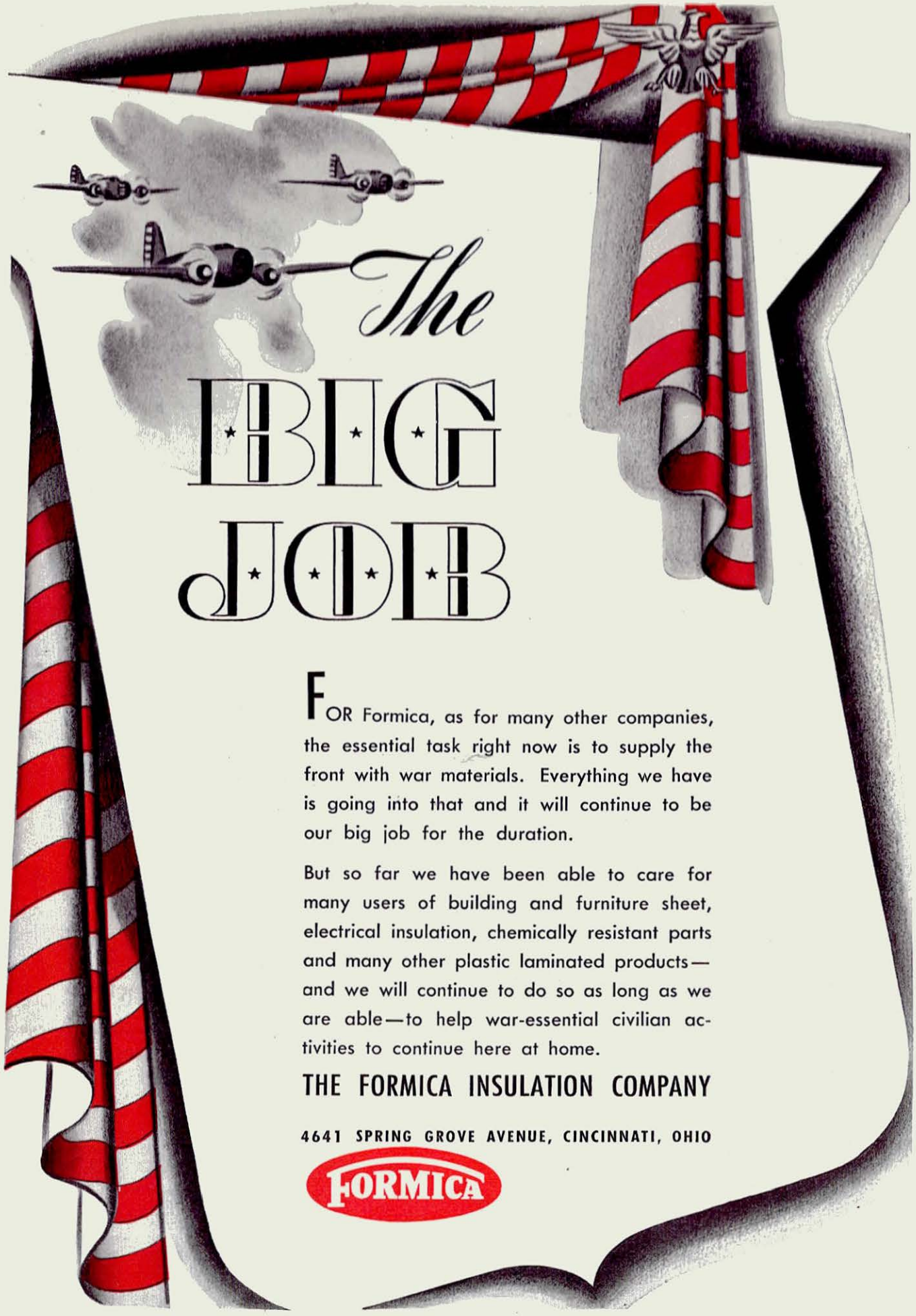
Units and parts for which formal orders are placed on or before August 31, 1942, will be manufactured and delivered by AMERICAN STEEL FOUNDRIES.

AMERICAN STEEL FOUNDRIES wishes to thank the railroads for the recognition given these Roller Bearing Units and for the business with which it has been favored.

SKF INDUSTRIES, INC. will serve the railroads to the best of its ability and solicits their continued patronage.

AMERICAN STEEL FOUNDRIES, CHICAGO
SKF INDUSTRIES, INC., PHILADELPHIA





The BIG JOB

FOR Formica, as for many other companies, the essential task right now is to supply the front with war materials. Everything we have is going into that and it will continue to be our big job for the duration.

But so far we have been able to care for many users of building and furniture sheet, electrical insulation, chemically resistant parts and many other plastic laminated products—and we will continue to do so as long as we are able—to help war-essential civilian activities to continue here at home.

THE FORMICA INSULATION COMPANY

4641 SPRING GROVE AVENUE, CINCINNATI, OHIO

FORMICA

TELETYPE

joins* the armed forces!

*—joins them closer together through instantaneous, typewritten communications

JUST as it saves time for most of the nation's major railroads, Teletype is now speeding communications for the Army, Navy, Coast Guard and Marines.

Offering instantaneous communications, it is helping to tie together the ever-increasing number of camps, bases, forts and depots. Since messages are received in typewritten form, time-consuming confirmations are eliminated.

Teletype is saving time which is so vital in our country's fight for Victory. Little wonder, then, that practically our entire output is being rushed either to our armed forces or to services on which they depend for rapid transportation of men and materials.

TELETYPE
REG. U.S. PAT. OFF.
SUBSIDIARY OF
Western Electric Company
INCORPORATED

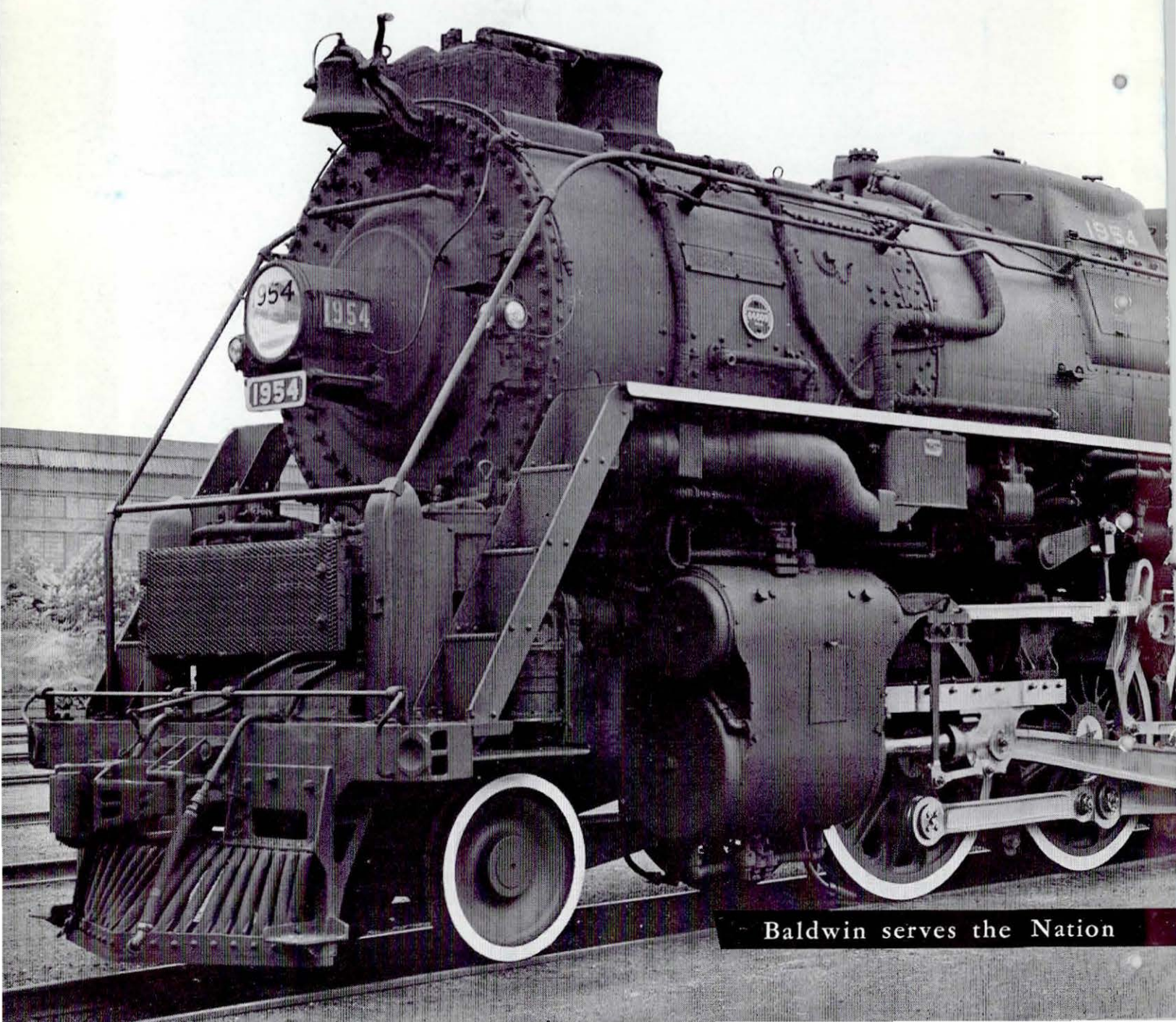
TELETYPE CORPORATION, 1400 WRIGHTWOOD AVENUE, CHICAGO, ILLINOIS

IRON HORSES *for the*

From Cincinnati and St. Louis to New Orleans and the Gulf, the Louisville and Nashville Railroad serves a great southern industrial and agricultural area now producing many of the things that America needs in volume and without delay.

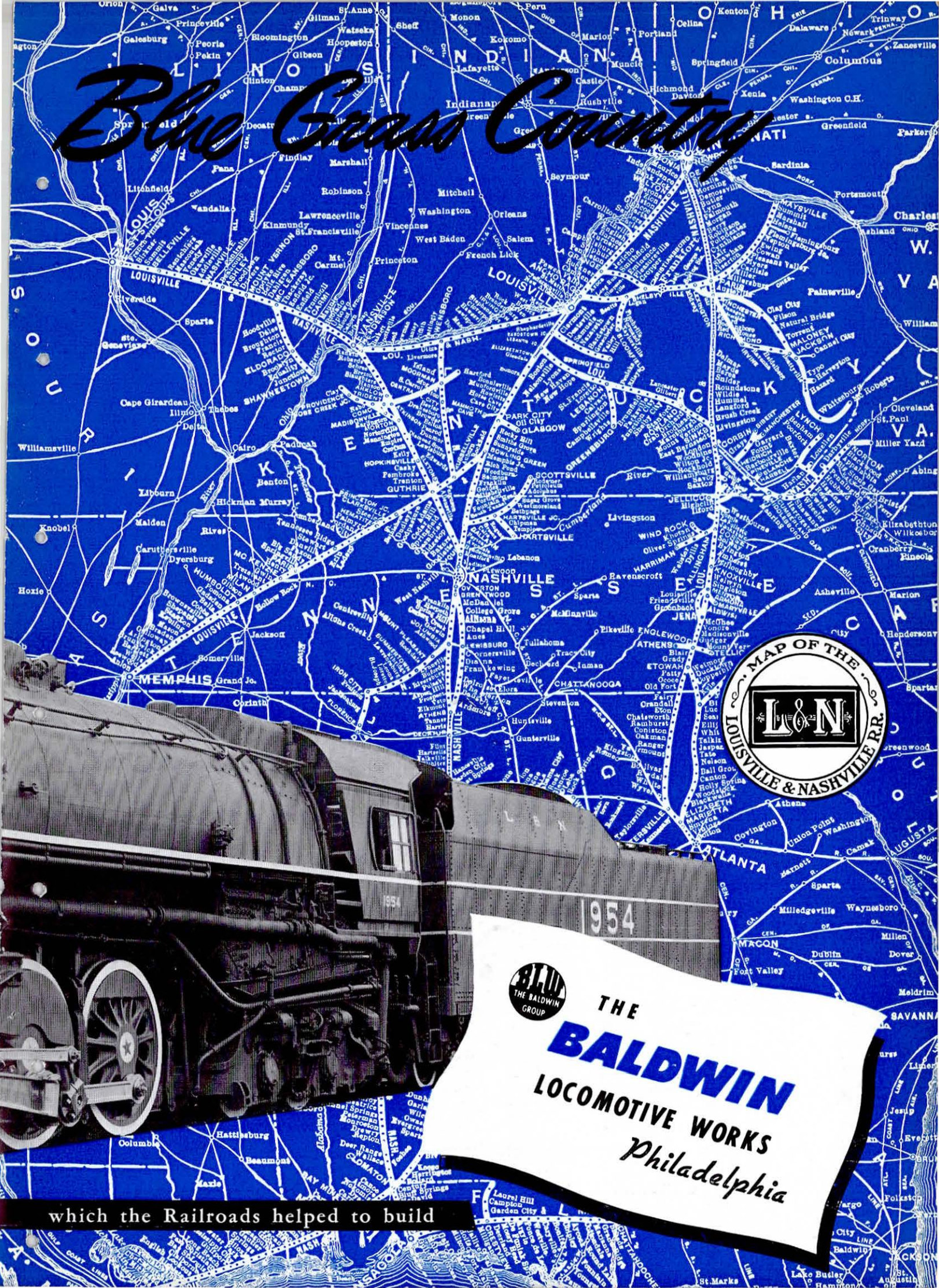
Since 1858, Baldwin has been serving the Louisville and Nashville with dependable steam power for all classes of service. Baldwin diesel-electric switching locomotives are helping to speed car handling in yards and terminals.

To this Baldwin fleet, the Louisville and Nashville is now adding fourteen powerful, 2-8-4 type freight locomotives to help move tanks, guns, steel, coal and military supplies of all kinds.

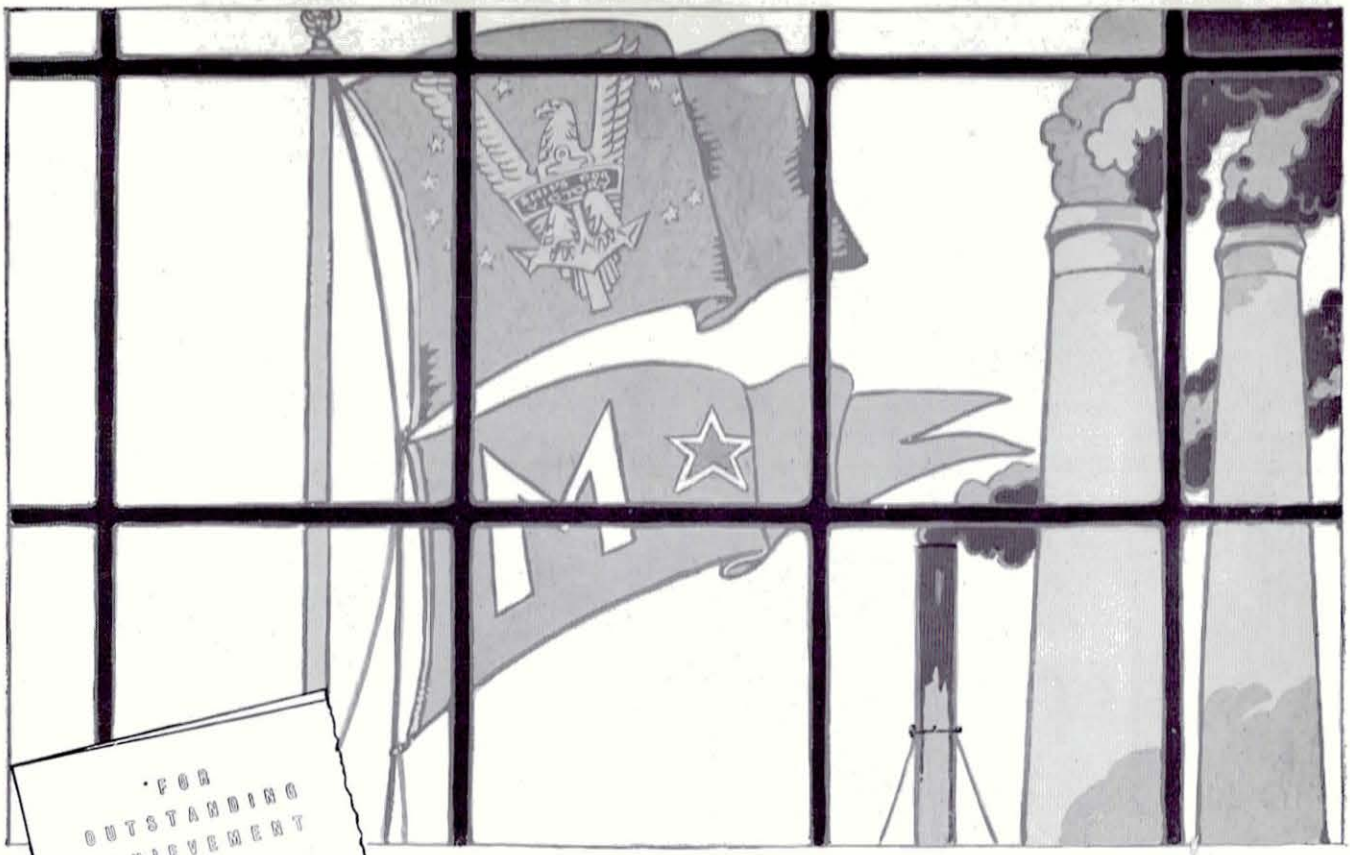


Baldwin serves the Nation

Blue Grass Country



which the Railroads helped to build



– and we shall do **BETTER**

In the all-out effort, we are proud to say that our men and we have been awarded the Maritime "M" Burgee–for Merit–the first industrial plant to be so honored.

GENERAL MACHINERY CORPORATION

HAMILTON, OHIO

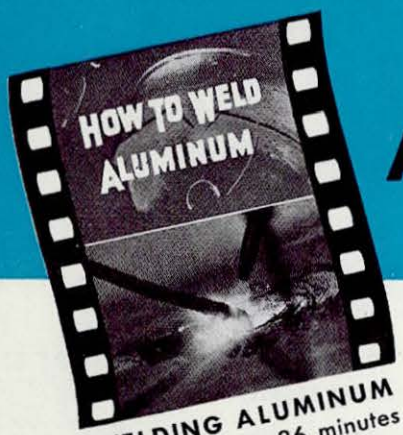
THE NILES TOOL WORKS CO.

THE HOOVEN, OWENS, RENTSCHLER CO.

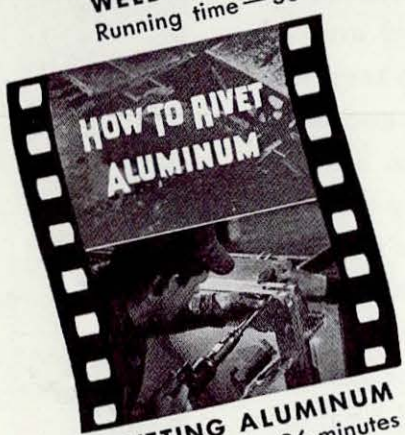
GENERAL MACHINERY ORDNANCE CORPORATION

3 NEW FILMS

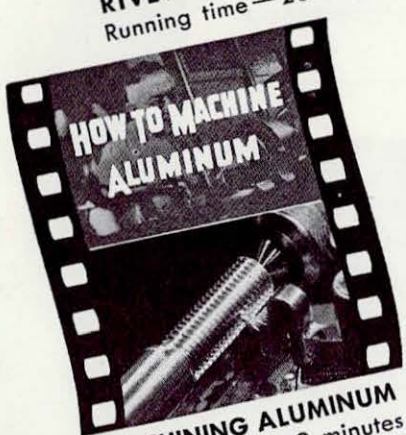
FOR TRAINING ALUMINUM WORKERS



WELDING ALUMINUM
Running time—36 minutes



RIVETING ALUMINUM
Running time—26 minutes



MACHINING ALUMINUM
Running time—32 minutes

Valuable "how-to-do-it" data on Welding, Riveting and Machining Aluminum is contained in these three, brand-new sound motion pictures. Designed to supplement texts and teaching, these films are offered for your assistance in training war workers in the fabrication and assembly of Aluminum Alloy parts and structures.

No drama, no humor, no romance! Every foot of these films is packed with hard-hitting task instruction.

"How To Weld Aluminum" describes and demonstrates the various essentials of torch and arc welding, brazing and resistance welding. "How To Rivet Aluminum" portrays the making and testing of rivets, preparation of the work, actual rivet-driving techniques and inspection. "How To Machine Aluminum" discusses alloys usually used, the kind and shapes of tools, cutting compounds, speeds and feeds.

Task instruction is made easier.

35 mm. and 16 mm. SOUND PRINTS AVAILABLE FOR LOAN OR PURCHASE

Prints of these black and white, sound motion pictures are loaned free.

List the titles of the pictures you want . . . your first and second choice of dates when you want them . . . whether you want 35 mm. or 16 mm. prints . . . and the approximate number of days you expect to use them. (NOTE: These films can be shown *only on sound projectors.*)

If you want to purchase prints for your permanent library, they are available at cost, shipping charges prepaid. Prices follow.

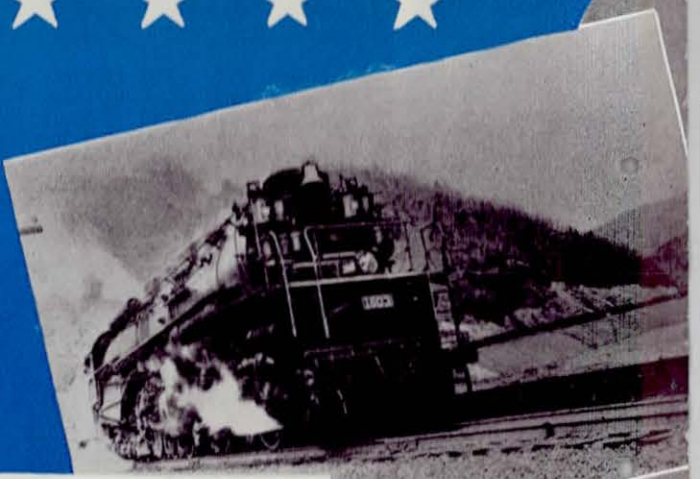
	16 mm. with fibre container	35 mm. with metal container
How To Rivet Aluminum	1200-ft. reel . . $42.80	2000-ft. reels . . $103.80
How To Weld Aluminum	1600-ft. reel . . 62.70	2000-ft. reels . . 176.30
How To Machine Aluminum	1200-ft. reel . . 50.70	2000-ft. reels . . 123.55

Send your requests for loan or purchase to Aluminum Company of America, 2178 Gulf Building, Pittsburgh, Pennsylvania.

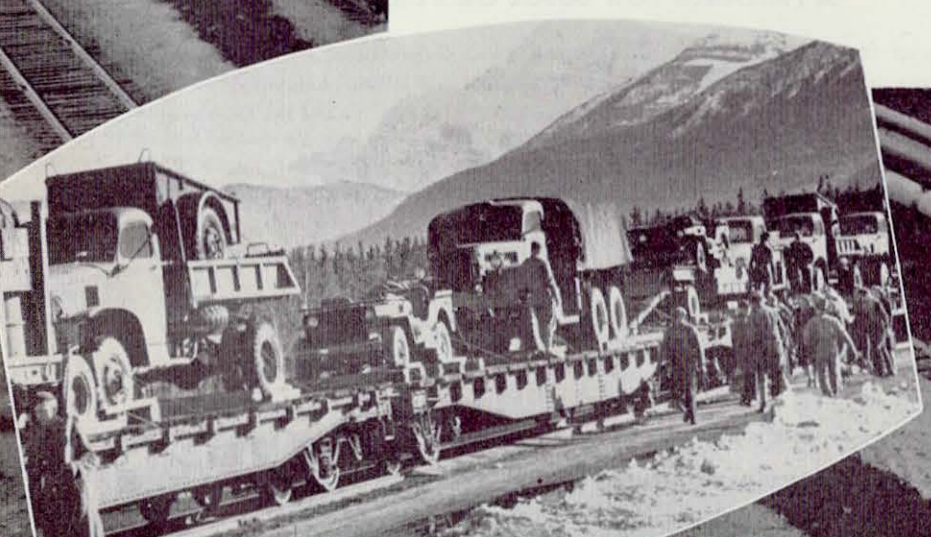
See these films at the National Metal Exposition, Cleveland, October 12-16.

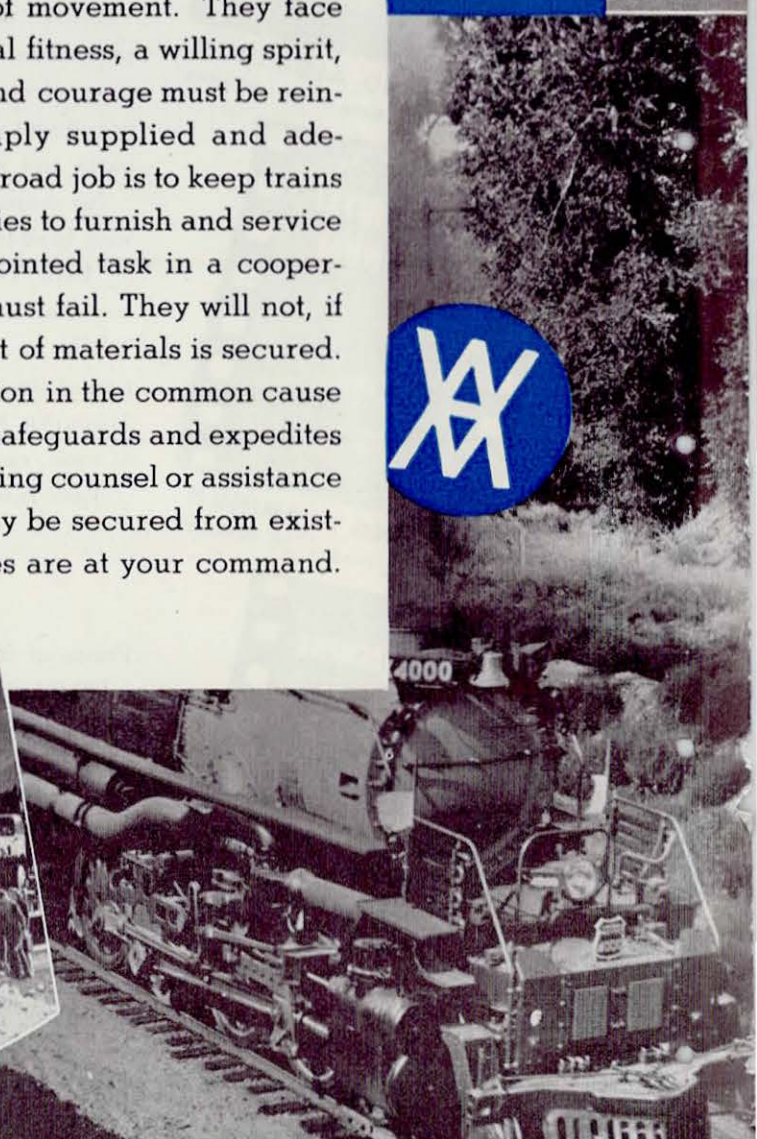
ALCOA ALUMINUM

A-1 Performance from . . . 1-A Equipment



THE railroads have been called up. Their status is class 1-A, no deferment permitted. All their units are in demand for the army of movement. They face the task with inherent physical fitness, a willing spirit, a sturdy heart. But stamina and courage must be reinforced with implements, amply supplied and adequately maintained • The railroad job is to keep trains moving, that of supply industries to furnish and service equipment — each to his appointed task in a cooperative responsibility. Neither must fail. They will not, if adequate and timely allotment of materials is secured. We purpose to fulfil our mission in the common cause with air brake apparatus that safeguards and expedites transportation, and with servicing counsel or assistance so the best possible results may be secured from existing equipment. Our resources are at your command.





WESTINGHOUSE AIR BRAKE CO.

WILMERDING, PENNSYLVANIA

Railway Age

With which are incorporated the Railway Review, the Railroad Gazette and the Railway Age-Gazette. Name registered U. S. Patent Office.

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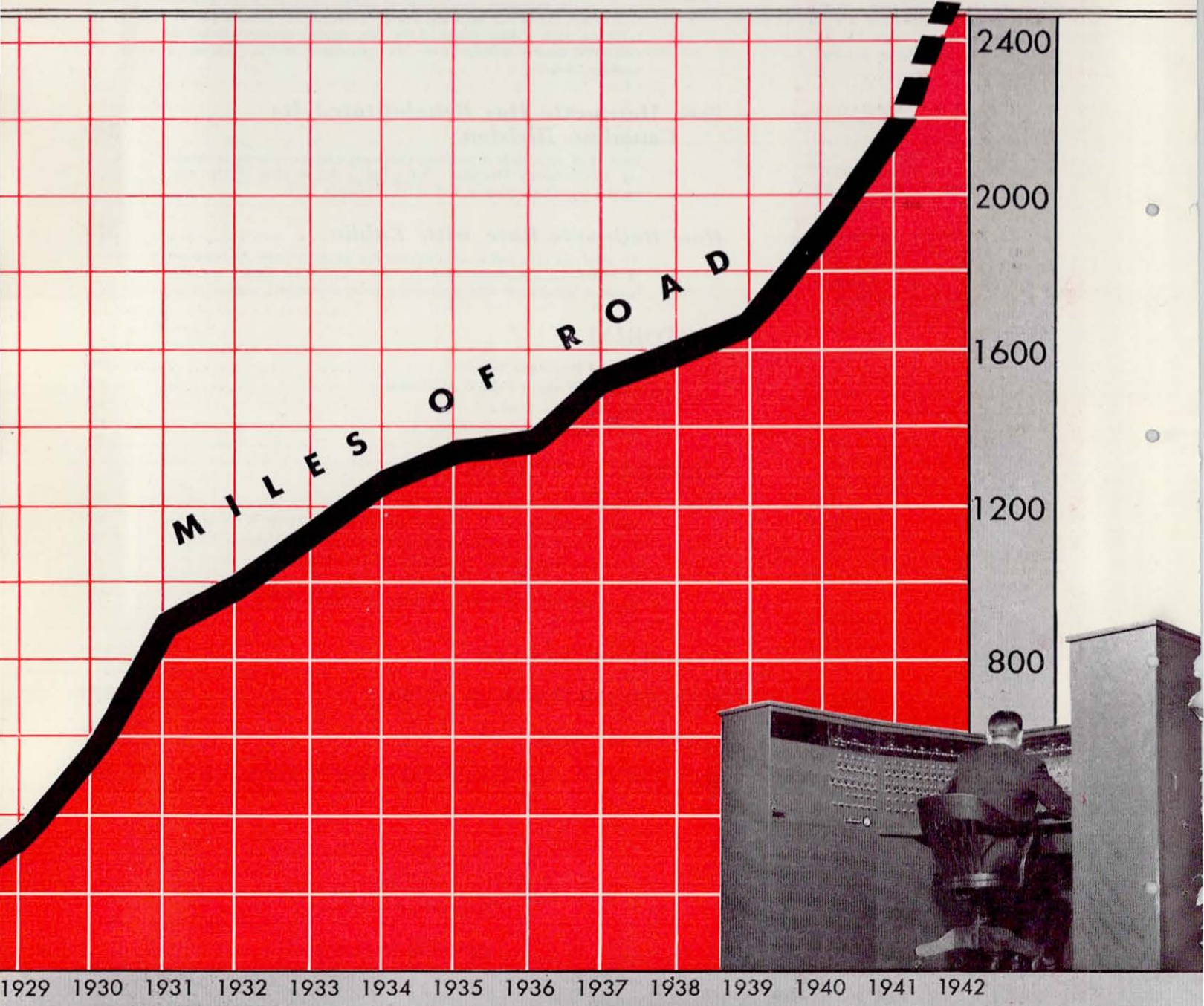
C. T. C. goes to WAR!

CENTRALIZED Traffic Control was introduced in 1927. Its contribution to the efficiency of railroad operation was recognized immediately, and for reasons of economy the railroads have made C. T. C. installations in steadily expanding volume. • The results secured have demonstrated beyond question the ability of this system to expedite traffic and increase track capacity. • Primarily developed as a peace time solution for normal railroad problems, C. T. C. now proves its usefulness in meeting the peculiar necessities of war. It can be installed in a relatively short time with minimum use of vital raw materials. • It will greatly increase the capacity of existing track and produce maximum utility from present cars and locomotives. Installed as a war measure, it will help to reduce transportation and operating costs after Victory.



UNION SWITCH & SIGNAL COMPANY
SWISSVALE, PA.

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

2073

The Week at a Glance

HOUSE-CLEANING NEEDED: If free enterprise, rather than a socialized or Nazified state, is to dominate the economic scene in this country after the war—private business has got a job ahead of it to convince the public that it is better fitted for such responsibility than bureaucrats and politicians. An editorial herein suggests, however, that private business had better not render suspect its propagandizing in its own behalf by practices contrary to principles of free enterprise, and contrary to the public interest. "Reciprocal buying," seeking increases in subsidized transportation, concerted action to exclude new competitors from a market, price agreements, are among the practices enumerated, which, if persisted in, must inevitably destroy free enterprise.

●

RECORD TRAVEL: Passenger-miles in May, for the first time, crossed the 1920 record—and our own estimates indicate that, by August, the volume grew further to 8 per cent more than in August, 1920. This development is discussed in the leading editorial herein. There are startling differences between 1920 traffic and that of today. For instance, the average journey now is almost double its length 22 years ago. Cars per train in '20 were less than 6½; now they average 9. Customers per car were less than 20; now they are 22½ (yet, if memory serves, congestion is much less now than it was back there). Getting the cars over the road more quickly is a big reason why 28,000 passenger-carrying cars today are doing more work than 41,600 did in 1920.

●

KILLS TRANSPORT TAX: The Senate finance committee has disapproved the proposed excise tax on freight transportation in the pending tax bill. It has also inserted a provision in the bill which would allow carriers to buy in their securities at reduced prices, without being taxed on the paper "profit" thereby secured. A further helpful clause favored by the Senate committee is one which would continue to tax reorganized companies on the assets of their predecessors—instead of, as now, heavily penalizing corporations which set their finances in order.

●

NEW CAR PROGRAM: The unconfirmed story is going the rounds that the WPB has in its hands a railroad program calling for the construction of 900 locomotives and 80,000 freight cars as a 1943 program—pared down to the minimum which traffic prospects will call for. Further details are given in the news pages herein.

●

WHAT PUBLIC THINKS: A public opinion survey has just been taken by the A. A. R. and is reported herein—to show what the carriers' war-time public relations job is. Compared to last year's sampling, there has been a gratifying reduction in the folks who think government operation is desirable. Still and all, though, there remain too many of them to encourage complacency. Too many passengers are not being treated the way they like to be. Too few people know about the carriers' near-miraculous movement of oil. Too few realize that it is niggardly allotment of materials—and that only—which endangers the continued adequacy of the roads' service. Some job ahead of the public relations boys—but they have a record of accomplishment which suggests that the assignment is one which they will fulfill.

●

"VICTORY" LOCOMOTIVE: 2-8-4 locomotives (25 of them) have been converted into 4-8-4's at Sedalia shops, and completion of the job was celebrated recently by the Missouri Pacific, its employees and fellow-Sedalians in a ceremony reported herein, in which the last engine of the lot was christened "Victory." The rebuilt power is almost equivalent to new—new cast-steel beds, larger drivers, roller bearings, new valve gears, and boilers largely new. The road is getting about double the mileage out of the engines as rebuilt.

●

DESIGNED BY TRAINMEN: 100 new Union Pacific cabooses—of a type illustrated and described elsewhere in these pages—embody in their lay-out the advice of O. R. C. and B. of R. T. members, added to that of the builder and the company's engineers. The cars are steel-sheathed and lined with plywood, with flameproof insulation. Cupola windows have shatterproof glass. Trucks are an easy-riding type, selected by the trainmen. Lighting is by mantle (kerosene) lamps. Large windows (to let in plenty of daylight) have shades. There are screens all around, a refrigerator and bunks with comfortable springs.

●

FIREMEN'S WAGES: The carriers have not been able to get anywhere in direct negotiations with the B. of L. F. & E. in the latter's demand for changed bases of computing wages (in reality, wage increases); and in its insistence that further unnecessary firemen be "featherbedded" onto engines where they are not needed. The case will go to the Mediation Board. Meantime, President Robertson of the B. of L. F. & E.—as is reported in an editorial herein—takes the view that there isn't any such thing as "featherbedding."

●

ODT CRYSTAL BALL: Daily reports which the ODT receives enable it at all times to visualize every important "traffic channel" in the country—and the amount of business each is doing, compared with its capacity load. This systematic, up-to-the-minute, nation-wide picture enables ODT officials to detect any and all congestion at its earliest incipiency—and to take steps to avoid it. From its point of vantage, the ODT reveals that—as of midnight August 31 — "the green lights" burned everywhere for the nation's war traffic. There is nothing to indicate that the fall "peak" will not be dealt with satisfactorily.

NO COACH RATIONING: Mr. Eastman, in a September 3 radio broadcast, assured the public that there will be no rationing of coach seats. What is less unlikely, he said, is that reserved seats in sufficient quantity (Pullmans primarily) will be set aside, where necessary, for the benefit of those whose travel is requisite to the conduct of the war.

●

LOCO'S AND OIL: If the railroads don't move all the oil they would like to, to the East coast this winter, it will be because they are shy on engines (WPB please note) rather than of tank cars. Mr. Pelley summarized the situation for a House committee this week, as is reported in our news pages. He set 800,000 daily bbl. as about the load which the carriers could probably be counted on to deliver.

●

SEVEN MONTHS' EARNINGS: The railroads in the seven months ended with July accumulated (estimated) net income of 376 million, compared with 233 million in this period last year. Net railway operating income for the same seven months was 681 million, as against 540 million a year ago. Taxes went up more than 100 per cent—being 617 million this year (for seven months), and 304 million last year.

●

B. & M. TRUCK RIGHTS: The full I. C. C. has reversed Division 5, in its decision that the Boston & Maine Transportation Company's long-established truck routes—operated by contract truckmen—were not entitled to "grandfather" certificates. Commissioners Lee and Rogers, who comprised the Division 5 majority which had taken this anti-B. & M. action, dissented at being thus overruled.

●

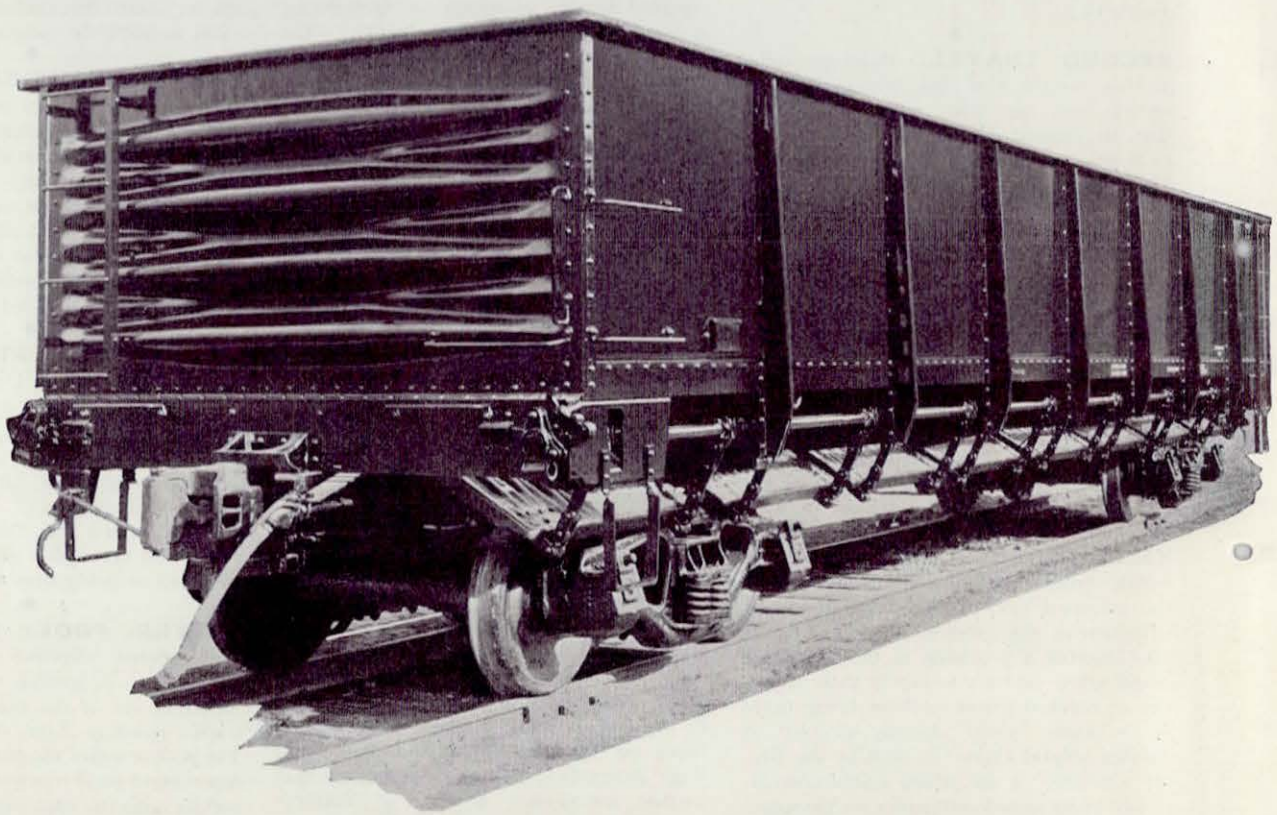
REEFER POOL: Refrigerator cars were pooled, effective September 1, for the purpose of getting the maximum performance out of the limited (compared to traffic) quantity of this equipment available. The pool is under the direction of P. F. E.'s superintendent of transportation. Joint car-service activity has required an enlarged organization at the Car Service Division, as announced elsewhere herein.

●

PROFESSORIAL PARTISANS: The organization known as the National Highway Users Conference has filed with the Transport Study Board a brief which supports its extremist views on the desirability of paying for highways largely out of general taxes, rather than by compensatory levies on actual users. The document makes the apparently incompatible assertions (1) that highways were built primarily for business, but (2) that they are a "necessary and integral part of society" (the inference being that it is quite right that "society" should pay for them). Three professors compiled the brief, which seemingly drew more on their talents as apologists than as logicians; and establishes them among the socializers of our economic life, rather than as upholders of self-supporting free enterprise.

DREADNAUGHT STEEL ENDS

ARE UNIFORMLY STRONG OVER THEIR ENTIRE SURFACE



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RAILWAY AGE

Record Passenger Service

Statistics for May that became available this week disclose remarkable facts about travel by railway. The most striking is that it recently has been (as estimated in *Railway Age* August 1, page 162) the largest in history. It attained its previous maximum in 1920; had declined 65 per cent in 1933; but in May, 1942, had become larger than in 1920. Its increases over 1941 have been: January, 40 per cent; February, 43 per cent; March, 38 per cent; April, 58 per cent; May, 79 per cent. If it increased only 80 per cent in August it was 5 billion 400 million passenger-miles, and exceeded by 8 per cent the previous all-time monthly record made in August, 1920.

The railways have much fewer passenger locomotives than in 1920, and they and the Pullman Company had about 41,600 passenger-carrying cars in 1920 as compared with about 28,000 at present. This year's passengers include troops on duty and furlough, as well as civilians. The average distance each traveled increased from 36.8 miles in May, 1920, to 73.6 in May, 1942. Average cars per passenger train were 6.4 in May, 1920, and 9 in May, 1942. Average passengers per car in May, 1920, were 19.61, and in May, 1942, were 22.5. Average service rendered per passenger-carrying car in May, 1920, was equivalent to carrying 2,916 passengers one mile *daily;* in May, 1942, to carrying 4,400 passengers one mile *daily*—an increase of 51 per cent.

Only 15 per cent of the increase in *service per car* being due to increase in average *passengers* per car, it follows there was an increase of 36 per cent in service per car due to increased efficiency. Improved locomotives, cars, track, signaling and operating methods increased speeds of trains, although the average train had almost 50 per cent more cars. Improved locomotives can be run more miles without being taken off trains, and are being put through roundhouses and shops and returned to service with unprecedented celerity. Cars are not only being run faster between terminals, but are left standing in terminals fewer hours, or even minutes; are better distributed according to territorial military and civilian needs; and old cars long unused have been pressed back into service.

How nearly has railway passenger capacity been approached? The situation differs territorially and on railways in the same territories. Average passengers per car probably increased from 22.5 in May to at least 32 in August. There are 17,200 coaches with an average seating capacity of 78; 2,900 combination coaches with an average capacity of 43; almost 300 parlor cars with an average of 35; and about 7,000 Pullman and other sleeping cars whose capacity depends on how many passengers occupy a berth. During the last war only 25 per cent of military forces were moved in sleeping cars; to date in this one, 66 per cent—although there are fewer sleepers. Small wonder the civilian in many places finds it difficult to get even an "upper!"

The foregoing figures show that, with every seat occupied, the railways could handle *three times* last May's traffic, and probably twice last August's traffic, with their coaches and combination coaches *alone.* Unfortunately, travel fluctuates so widely that it is wholly impossible to utilize total *potential* capacity. Shortages of capacity have developed in some places when large surpluses have existed elsewhere; and this will continue. But it can be said with certainty that the railways' and Pullman Company's record in handling passengers during the last spring and summer far exceeded every past experience and reasonable expectation.

Who Will Shape Post-War Economy?*

Believers in private enterprise should be studying, planning and discussing the post-war economy now for at least three reasons. First, they should prepare themselves to offer a definite program to the public in competition with that which will be offered by promoters of a post-war government-planned economy. Second, they should be eliminating practices from private enterprise that weaken it internally, as well as resisting government policies intended ostensibly for other purposes, but intended actually to undermine private enterprise. Third, they should be propagandizing for private enterprise after the war, and should not meantime render their propaganda ineffective by practices which, when attacked, cannot be defended to the public, because demonstrably (a) contrary to the true principles of private enterprise, (b) contrary to the public interest, or (c) in violation of existing statutes.

There are opposite tendencies among the New Dealers. Those with Nazi or socialistic inclinations encourage both government monopolies and private monopolies under government dictation, because they believe non-monopolistic private enterprise undesirable or virtually defunct. Those led by Thurman Arnold oppose all monopolies; and, believe it or not, with all his mistakes, aberrations and inconsistencies, Arnold is the best friend of private enterprise in the administration. For business in this country *must* decide whether it prefers monopoly under absolute government dictation—as in Germany, Italy, Russia and Japan—or free *competitive* private enterprise; and apparently Arnold is fighting sincerely to help save the latter.

Much business still shows, as it has for years, that it wants to eat its cake and keep it—to practice monopoly when it believes it will gain thereby, but also to keep private enterprise, the essence and essential driving force of which is *competition within naturally competitive industries*. It resorts to "reciprocal buying," which tends to promote monopoly and hinder technological progress because giving to big companies a big advantage that is unrelated to the quality and value of their products or service. It resorts increasingly to private transportation by water and highway, and seeks and secures government subsidization of it, which tends toward monopoly because only companies already big can engage extensively in private transportation. It strives to restrict competition by concerted action of existing companies to exclude new companies; by agreements to restrict advertising; by agreements regarding prices; and so on *ad infinitum*.

When the Great Depression struck, business leadership had no program or policies to offer excepting such as would deepen and protract it. We have been credibly informed repeatedly that the original plan of N. R. A. was taken to the White House by the then president of the United States Chamber of Commerce. Being a program for cartelizing industry, advancing wages and reducing working hours, N. R. A. was perfectly adapted to *protracting* the depression—which it did; and yet at first it was widely supported by business leaders who later as widely condemned it.

Will business leadership be caught equally unprepared after the war? It will be if it again (a) fails to inform itself regarding what is necessary to make private enterprise work, (b) fails to help reform abuses in private enterprise that hinder it from working, and (c) fails to educate public opinion in behalf of a reformed private enterprise that will work.

* Previous editorials on the post-war economy appeared in *Railway Age* on July 25, page 128, and August 15, page 257.

Robertson vs. Pegler

David B. Robertson, president of the Brotherhood of Locomotive Firemen & Enginemen, has taken out after Westbrook Pegler, Scripps-Howard columnist, in the September issue of the B. of L. F. & E. Magazine. In his August 1 syndicated article, Mr. Pegler mentioned, quite incidentally, the "featherbed rules" on the railroads, adding that the "marvelously fine labor relations of the railroads" are a "fake," and the reason that industrial peace obtains on the railroads is that "management never wins a contest, and management can't strike."

Mr. Robertson writes of "fascist-minded men of our own nation who drape themselves in the American flag" and then excoriates Pegler, whom he seems thus to include in this category. He cites the long hours that some railroad men are now working (and being paid for), as if thereby to disprove the "featherbed" charge. "Featherbedding," of course, has nothing to do with long hours of honest labor; it refers solely to hours paid for, but not worked, and to supernumerary employees required, who perform no necessary service. In short, Mr. Robertson doesn't really answer the "featherbedding" charge at all.

In refutation of Pegler's statement that "management never wins a contest," Mr. Robertson cites the deduction of 10 per cent from railway wages that was made, temporarily, beginning in 1932. But that deduction was made by agreement with the unions, not as a result of a "contest" under the Railway Labor Act. There have been three important wage "contests" and many minor ones under the Railway Labor Act since then, and the outcome in these and all preceding "contests" under the Railway Labor Act support Pegler's generalization—with the result, among others, that average hourly railway pay is now 25 per cent higher than in 1931 and average weekly pay 40 per cent higher.

Labor relations on the railroads are far more favorable than those in many other industries. But certainly it is going a little strong to suggest that they are above all critical comment. Mr. Pegler's main efforts have been devoted to exposing out-and-out graft and crimi-

nality in the labor movement, which prey on workingmen as well as the public at large. To call him a "notorious propagandist" (as the paper "Labor" does in its September 1 issue) may be taken to indicate disapproval—not merely of his short side-reference to railroad labor relations, but of his campaign against extortion and criminality in the labor movement. Surely the railway labor leaders do not wish to place themselves in that light.

As Mr. Eastman has said (in his message to the Clerks' Organization, *Railway Age*, July 25), "in the labor world we see the tendency to develop tyrants, pirates and buccaneers." He advised the railway unions to keep their own record clean, and to use "their large influence in the labor world" to better conditions therein. A broadside attack on the most effective campaigner against these "tyrants, pirates and buccaneers" is not a very effective way of disassociating railway unionism from that of an anti-social character.

Increase of Standardization

Some engineering and maintenance officers see in the present enforced trend toward standardization to conserve materials and simplify manufacture, long-time as well as immediate benefits to the railways. The multiplicity of designs for many elements of the track structure, as well as for many tools for maintaining it, have long subjected engineering and maintenance men to criticism from within and without their own ranks. Often the question has been raised as to why there should be so many hundred different designs of joint bars? Why several thousand different punchings of tie plates? Why anywhere from a dozen to a hundred sizes and designs of even the simplest track tools?

Those who have raised these questions have contended that there is widespread needless variation in designs and that they have increased the price of every unit purchased. On the other hand, opponents of rigid standardization, fearful of stifling individual initiative, have advanced many arguments against it. Among their contentions has been that, because of the wide range in requirements and practices, practically all standards present a compromise between conflicting ideas or requirements, and therefore satisfy few specific requirements satisfactorily.

Gradually the proponents of standardization, with the aid of various railway organizations, have made substantial progress, and now the war effort is aiding them. It is not a question at present of meeting everyone's requirements or whims, or even of securing the lowest possible costs, but rather of securing the maximum productiveness from existing manufacturing plants and facilities, with minimum waste of effort, time and materials. Recognizing this, railway engineering and maintenance officers, acting through the American Railway Engineering Association, have adopted restricted lists of plans and specifications for many track materials, and have modified many other plans and specifications, for use for the duration of the war.

What the future holds in the further narrowing of standards no one knows; but on one thing all railway engineering and maintenance officers are agreed—that whatever is required to help promote the country's war effort, not disregarding the importance of adequate and safe train operation to this effort, will be accepted and made the most of now. This does not preclude constructive criticism of proposals made or standards imposed. If engineering and maintenance officers know of unwise efforts to standardize, and can demonstrate that they promise to defeat the end sought, it is not only desirable that they direct attention to them critically, but their duty to do so.

How Railroads Have Been "Selling" Themselves

"While making use of every facility at their command to meet this great emergency the railroads have not failed to realize the great need for selling themselves to the public, and in this they have, in our opinion, turned out a job fully as outstanding as that performed by them in keeping their lines from becoming a tangled mass of engines and cars and men and steel.

"The men who are operating our railroads today have undoubtedly given much thought to the circumstances which eventually brought government operation of their lines during World War No. 1, and by profiting from the mistakes of those who were in charge of rail systems at that time they are now enjoying a situation in which we have an almost complete absence of agitation for government operation of the nation's railroads.

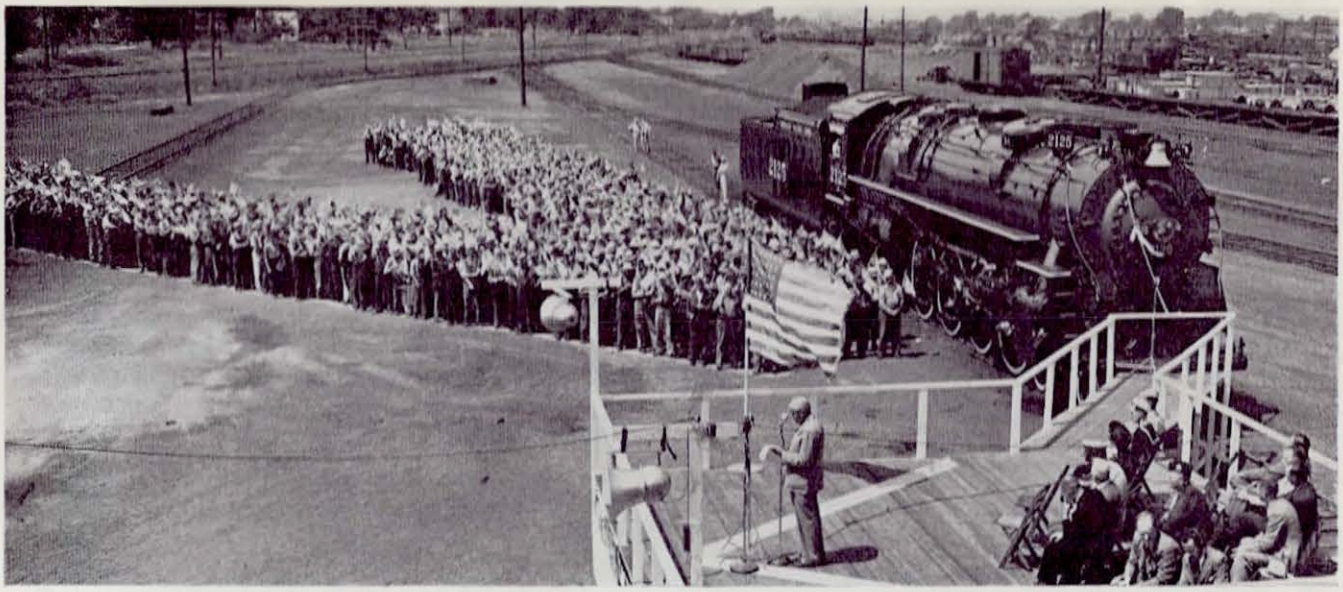
"This is not difficult to understand when one looks over the selling campaign which the railroads of the country have been carrying on for the past several years. Their local and national advertising campaigns in newspapers and magazines have carried strong appeals to the public for the Iron Horse, and the attractive service which its increasing speed and brute strength has made possible.

"Their art work showing leviathans of the rails in ritzy colors, hooked to units of stream-lined accommodations on wheels never before dreamed of, has impressed old and young alike while new and improved services have kept pace with statements made in their 'good will' messages to the public.

"In addition to all this, the various companies have steadily improved their own publications, including bulletins, house organs, and news releases to the press, until the entire nation, from Master John and Mistress Mary right on down the line to Grandma and Grandpa, have become sold absolutely and most convincingly on the services of the nation's railroads, the loyalty and efficiency of its employees, and the need for nation-wide support towards their operating policies.

"This has resulted in an outstanding job of selling a utility to the general public in which the sales presentation has been backed up by producing the goods in services and accommodations promised. The public was not let down, and since Pearl Harbor the public has demonstrated its appreciation with patience and tolerance towards the suddenly enforced curtailments of these services and accommodations."

From "Under the Pepper Trees," by Forrest E. Doucette in the Ontario (Calif.) Herald & Outlook.



Sedalia Shop Men Forming Letter "V" Beside the Victory Locomotive During the Christening Ceremonies

"Victory" Locomotive Is Christened

Sedalia shop employees and townspeople hear messages from public officials in ceremony for Missouri Pacific 4-8-4's which are delivering double mileage since being rebuilt

DURING the last two years, the Missouri Pacific has completely rebuilt and converted at its Sedalia, Mo., shops 25 locomotives of the 2-8-4 type into roller-bearing 4-8-4 type locomotives. Formerly of the 1900 Class, they are now the 2100 Class and are numbered 2101 to 2125, incl. In view of the real contribution which this new motive power has made to the efficient handling of both war and civilian traffic on the railroad, the last locomotive of this group, No. 2125, was christened the "Victory," and dedicated to service in a colorful ceremony held at Sedalia, on Thursday, August 20.

It is estimated that about 5,000 people assembled in the Sedalia shop grounds to witness the christening, and, of these, 1,100 were Sedalia shopmen who marched past the speaker's platform in a long column, eight abreast, carrying American flags, and formed a large letter V beside the locomotive. After suitable opening exercises, which included the singing of America, and music by the high school band, Shop Superintendent G. T. Callender introduced Mayor A. H. Wilks of Sedalia, Col. Robert Wheat, United States Army, and Rev. W. P. Arnold, chaplain of the American Legion, who delivered the principal address.

A feature of the exercises was the reading of congratulatory telegrams from representatives of the government, army and executive officers of the railroad. F. C. Donnell, Governor of Missouri, wired "I pay tribute to this Victory locomotive and to the railroad employees throughout our nation for the constant and vital services they are rendering." Lt. Gen. B. B. Sommervell, commander, Services of Supply, U. S. A., extended his congratulations and said "You can be proud of contributing this powerful weapon to the arsenal of democracy." Brig. Gen. Carl R. Gray, Jr., wired the congratulations of the commanding general and 22 commissioned officers from the Missouri Pacific with the Military Railway Service.

Joseph B. Eastman, director, Office of Defense Transportation, extended hearty congratulations and U. S. Senator Clyde M. Reed wired "Transportation is necessary to any war effort. It is useless to manufacture airplanes, tanks and munitions unless they can be transported to the fighting fronts. The railroads of the country are doing a magnificent job and sufficient motive power is vital to furnishing ample transportation. The motive power supply is likely to be the bottleneck of successful operation. I congratulate the mechanical workers of the Sedalia shops on launching a new Victory locomotive. That is as important as launching a new ship. I repeat the expression I have previously made in the U. S. Senate and pay my tribute to the million employees and the organizing genious of railroad executives for their contribution to the national welfare."

Employees Help "Keep 'Em Rolling"

Congratulatory telegrams received from various officers of the Missouri Pacific were read and in general conveyed the sentiments expressed in a wire from L. W. Baldwin, chief executive officer, as follows: "All of us rejoice with you and your Sedalia forces in the launching of another Victory locomotive. The splendid work done by the Sedalia shop men symbolizes the determination of all members of our Missouri Pacific Lines family and railroads everywhere to 'Keep 'Em Rolling,' so there will be no lull in production nor delays in supplying our armed forces. Heartiest congratulations to you and

to all others who had any part in the building of this, our newest contribution to victory."

While nominally rebuilt from 1900-Class locomotives, purchased from the Lima Locomotive Works, Inc., in 1930, the 25 Victory locomotives constructed at the Sedalia shops of the Missouri Pacific are the equivalent of new power, consisting of practically complete new boilers built at the local shops, new cast-steel beds with integral cylinders, new and larger driving wheels, roller bearings throughout, new valve gears and rods, and tenders equipped with roller-bearing trucks.

Monthly Mileage Doubled

The new M. P. 2100-Class locomotives have been in service, in some instances, since early in 1940, and have given an excellent performance from the point of view of reliability, high monthly mileage and the satisfactory handling of modern high-speed trains in both passenger and freight service without introducing excessive stress in either the track or equipment. A notable increase in locomotive availability and mileage have been secured. For example, in July, 1942, 23 of these locomotives each made an average of 212,740 miles which may be compared with 105,340 miles per month prior to the conversion. Similarly, the cumulative mileage since converting this power is 2,247,594, which may be compared with 1,063,729 miles for a corresponding previous period. The locomotives are, therefore, now making more than twice the mileage per month that they did formerly.

Referring to the table of comparative dimensions, it will be noted that the driving wheel diameter of 2100-Class locomotives was increased 12 in. and total engine weight 33,750 lb. The firebox heating surface was substantially increased by the addition of a 63-in. combustion chamber equipped with a Thermic syphon. The steam pressure was increased to 250 lb. per sq. in.

The boiler of this locomotive was constructed at Sedalia shops, and is entirely new except the outside wrapper sheet, back head, smokebox and steam dome.

Principal Dimensions and Weights of Missouri Pacific Victory Locomotive Before and After Conversion

A Comparison of the Missouri Pacific 1900 and 2100 Locomotive Classes

	Original No. 1901 2-8-4	Rebuilt No. 2101 4-8-4
Built by	Lima	Mo. Pac.
Date	1930	1940
Cylinder size, in.	28 by 30	28 by 30
Valve diameter, in.	14	14
Type of valve gear	Walsch.	Walsch.
Stoker	B. K.	B. K.
Booster	None	None
Feedwater heater	4¼ B. L.	4¼ B. L.-2
Driving wheel diameter, in.	63	75
Loaded weights, lb.:		
Drivers	275,500	279,360
Trailer	96,900	96,590
Engine truck	39,800	70,000
Total engine	412,200	445,950
Boiler tubes:		
Number	77-204	50-190
Diameter, in.	2¼-3½	2¼-3½
Length, ft.	21½	21½
Heating surface, sq. ft.:		
Firebox	256	355.7
Tubes	969.4	630
Flues	3,999	3,725
Arch tubes	15.5	15.5
Syphons	85	111
Total	5,325	4,837
Superheating surface, sq. ft.:	2,330	1,953
Ratio of adhesion	4.14	4.19
Steam pressure, lb.	230	250
Tractive force, lb.	66,500	66,640
Tender capacity:		
Coal, tons	20	20
Oil, gal.	..	..
Water, gal.	17,250	17,250

The firebox was renewed, including a 63-in. combustion chamber, using the original mud ring, with a new outside throat sheet and braces. Nicholson Thermic syphons were applied, including one in the combustion chamber, and Duplex Thermic syphons were installed for test purposes on one locomotive.

A General Steel Castings bed, having integral cylinders and main reservoir, was applied. New cylinder bushings were installed, together with L. F. M. pistons in combination with Universal sectional bull rings and packing rings. The new 75-in. Boxpok driving wheels were mounted on new axles in Timken roller-bearing box assemblies, Franklin compensators and snubbers being applied on all driving boxes. The Alco lateral cushioning device was installed on the front drivers. A new General Steel Castings four-wheel engine truck was equipped with Timken roller bearings and 36-in. wheels. The four-wheel trailing truck was not changed, but Timken roller bearings were applied to new axles in the original 33-in. and 45-in. wheels. A lateral-motion device was also incorporated in this truck design.

New main and side rods were installed and the original Walschaert valve gears replaced by new Walschaert gears, equipped with needle-type roller bearings. Multiple bearing guides and crossheads were applied, the guides incorporating Alco expansion clamps and the crossheads, Baldwin-type pins and keys. The Worthington Type 4¼ BL feedwater heater was rebuilt into a Type 4¼ BL-2 by applying various wing-type valve service, steam cylinder and valve-gear parts. An Edna 824 lubricator was applied to a bracket located on the back of the right steam-chest cover with drive-arm connection to a bracket on top of the link cheek. A similar lubricator was applied on the left side back of the link support, drive being taken from the top of the link cheek. The original power reverse gear was re-applied.

The original 17,250-gal. tender was used and roller bearings were applied to the six-wheel trucks, which have 33-in. wheels. A Franklin Type E-2 radial buffer was applied between the locomotive and the tender, with a pocket welded to the front of the tender frame. The tender was piped for steam heat and air signals so that these locomotives may be used for passenger service, if desired. The original brakeman's cupola was maintained. Water-car piping was also maintained, but relocated to suit the steam-heat pipes.

How the Conversion Work Was Handled

The work of rebuilding and converting these locomotives was scheduled through the Sedalia shops along with other classified repair jobs, dates being assigned for the completion of various units of work in accordance with the boiler test date. Double-shift operation was used wherever necessary, primarily on motion work and in the wheel shop. Boiler sheets were laid out and stack-cut four at a time for the first four locomotives and subsequently three at a time. The application of roller bearings necessitated greater accuracy in both wheel and axle work and also in the lining of shoes and wedges and fitting driving boxes in the frame pedestals.

Approximately 800 man-hours a day were expanded on the conversion work which consisted of a large number of unit operations summed up briefly as follows: Dismantling, 952 man hours; boiler work, 8,761 man hours; machine shop work, 4,691 man hours; blacksmith shop work, 2,006 man hours; erecting shop work, 2,811 man hours; pipe and other work, 2,647 man hours; total 21,868 man hours per locomotive.

Substandard Rates No Longer Justified

Uneconomic services, helpful when traffic needs stimulant, are illogical when facilities are scarce—Economies being evolved now should continue as commerce aid in peace time

By Alvin W. Vogtle

President, National Assn. of Regional Advisory Boards, and Manager, Traffic & Sales, De Bardeleben Coal Corp., Birmingham, Ala.

A. W. Vogtle

SOME shippers and receivers of freight—beneficiaries of subnormal freight rates and uneconomic railroad service, the product of a decade of depression and bitter competition—are insisting that these favors be "frozen" for the duration. Arguments advanced in support of this contention are that shippers should be spared the distraction of rate controversy while they face the exigencies of the war effort; that shippers deserve this consideration because of co-operation they are extending in efficient utilization of railroad plant; and that increases now would produce hardships because of "price ceilings."

Injurious to the "Full Pay" Customer

There is another viewpoint on these unduly depressed rates and uneconomic services—and that is the situation of the "full pay" shipper. For every subnormal rate, for every uneconomic, money-losing service, accorded to others (sometimes his competitors), the "full pay" shipper or consignee has to pay a higher price than could otherwise reasonably be required of him.

In times of extremely light traffic, concessions of subnormal rates and abnormal services to some shippers, might conceivably have benefited the "full pay" customer—because, presumably, these concessions were necessary to hold the traffic on the railroads. If the railroads had lost this traffic at such a time, then loss of such contribution as this profitless traffic made to railroad overhead expenses might have been a further burden which "full pay" shippers would have had to assume.

Non-Compensatory Rates a Depression Expedient

Now, however, the railroads do not need the traffic attracted only by subnormal rates. What is equally to the point, the "full pay" shippers don't need it either. These concessions do not help them now, and they cannot fairly be asked to consent to such discrimination. In fact, it has been estimated that the elimination of subnormal freight rates might have spared the country the Ex Parte 148 increase.

The Office of Price Administration recognizes freight rate increases as justification for price "ceiling" adjustments. A recent case of my own experience is Amendment No. 1 to Maximum Price Regulation No. 189, Bituminous Coal Sold for Direct Use for Bunker Fuel, dated August 22, 1942, which permits an increase of 26 cents per ton in ceiling prices for bunker coal at Gulf ports to compensate for the elimination of a water-competitive reduction of that amount. Actually, many "ceiling" prices are based on normal freight rates and, therefore, the maintenance of the subnormal rates simply means an extra profit margin for the beneficiary.

Low prices were the rule in the depression years. Industry was on short time, transportation facilities were partly idle, and the only choice was to do business at a loss in order to remain in business. It was a desperate program to hold body and soul together, while awaiting anxiously for better times, and it was at the expense of human suffering. Here in the South, as a depression support for the coal industry of Alabama, the railroads published very low truck-competitive rates and even lower water-competitive rates. The coal producers reduced the mine prices. The lower delivered cost thereby made possible was of great benefit in sustaining our coal industry in this depressed period.

Traffic No Longer Needs Stimulant

These conditions no longer prevail. All prices are substantially increased over the depression level, with numerous products more than doubled in price. But there has been no increase so insignificant as that for transportation service. And a shortage of transportation now threatens. In this situation, simple business logic directs that transportation facilities should not be employed in unremunerative service. Concessions should

(*Continued on page 372*)

Pere Marquette Has Rehabilitated Its Canadian Division

Improvement program included the provision of a complete new engine terminal, modern in every respect, at St. Thomas, Ont.

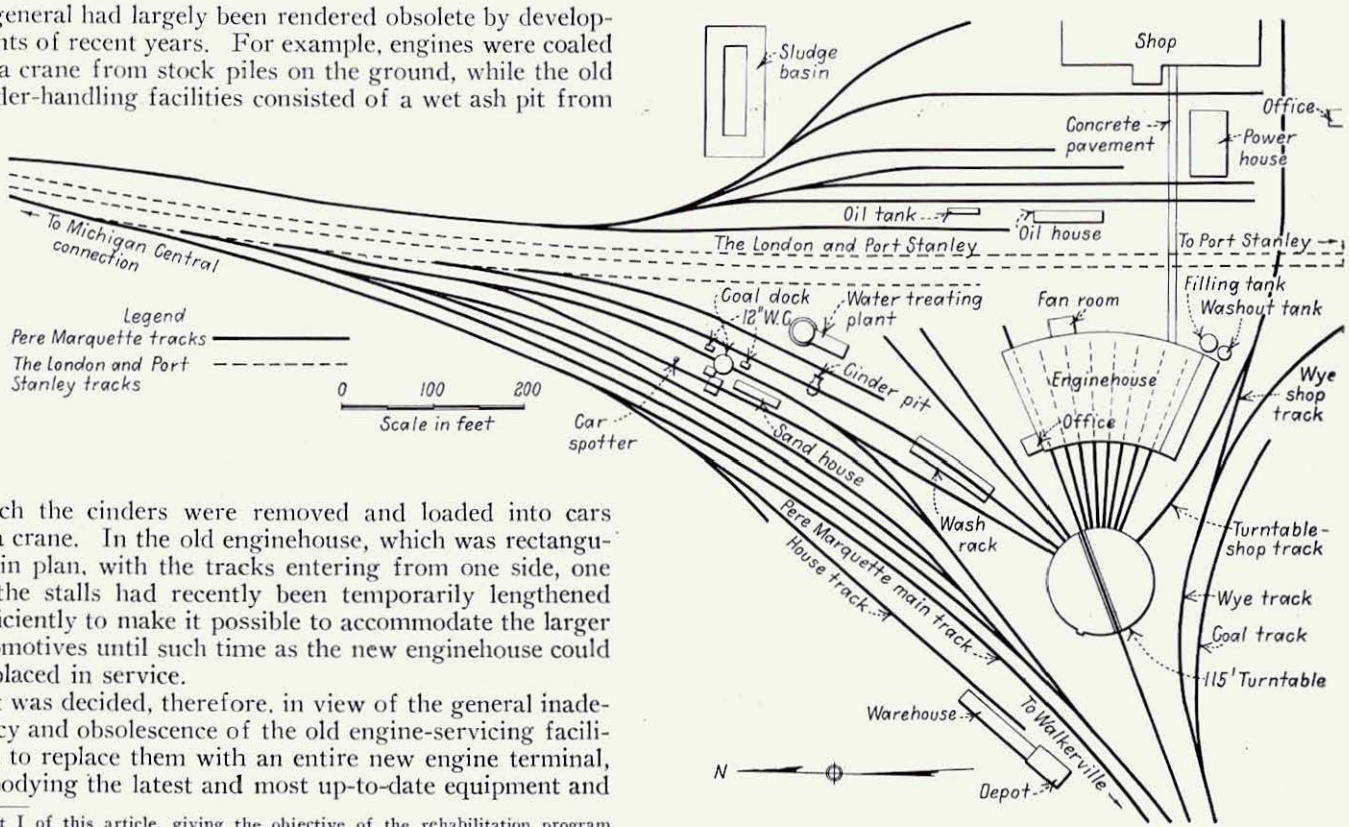
Part II*

AN important phase of the improvement work that has been carried out on the Canadian division of the Pere Marquette consisted of the construction of a complete new engine terminal at St. Thomas, Ont., to replace an existing facility which was inadequate to handle the Mikado locomotives that it was planned to introduce on this division. Not only were the existing 70-ft. turntable and the stalls in the old eight-stall enginehouse too short to accommodate the larger power, but these structures and the engine-servicing facilities in general had largely been rendered obsolete by developments of recent years. For example, engines were coaled by a crane from stock piles on the ground, while the old cinder-handling facilities consisted of a wet ash pit from which the cinders were removed and loaded into cars by a crane. In the old enginehouse, which was rectangular in plan, with the tracks entering from one side, one of the stalls had recently been temporarily lengthened sufficiently to make it possible to accommodate the larger locomotives until such time as the new enginehouse could be placed in service.

It was decided, therefore, in view of the general inadequacy and obsolescence of the old engine-servicing facilities, to replace them with an entire new engine terminal, embodying the latest and most up-to-date equipment and construction. Briefly, the new facilities include an eight-stall enginehouse of brick, concrete and frame construction, incorporating a boiler-washing plant; a 115-ft. continuous type deck-girder turntable; a mechanically-operated cinder-handling plant of the skip-bucket type; a 200-ton capacity coaling station of the overhead steel tank type, in which the hoisting of coal to the storage bin is controlled automatically; a sand plant incorporating a coal-fired sand dryer in a reinforced concrete house having a storage capacity of three 50-ton cars; a motor-driven car puller for spotting cars at the coaling station; a lime-soda ash water-treating plant of the standpipe type, with a brick and concrete chemical-mixing and storage house; a 100-ft. concrete wash rack for locomotives; and a locomotive hoist (installed in the existing main shop building) capable of lifting the heavier locomotives. An existing wood water tub having a capacity of 40,000 gal. was incorporated in the new layout, and two new 12-in. water columns were installed. Sludge from the new water-treating plant is discharged into a basin that was provided especially for this purpose. The

Sorry—No Pictures

Owing to stringent war-time restrictions on the transmittal of photographs out of Canada—particularly those which might interest or assist the enemy—it has been necessary to present this article without illustrations of the features of the work involved.



Plan of the New Engine-Terminal Facilities at St. Thomas

* Part I of this article, giving the objective of the rehabilitation program and describing the track and roadbed improvements and the strengthening of the Kettle River bridge, appeared in the August 29 issue.

engine terminal is situated near a point where the main line, coming in from the west, curves to the north to make a connection with the tracks of the London & Port Stanley (an electrified line), by means of which it reaches the Michigan Central tracks a short distance to the north. At this same point a wye track curves to the south, and the engine terminal is located in the angle formed by the main and wye tracks. The third side of the engine terminal area is bordered by the tracks of the L. & P. S., and the Pere Marquette's shop facilities at this point are situated across the tracks of the latter company from the engine terminal. While the area described is the site of both the new and old engine terminals, it was necessary, because of the greater size and more comprehensive nature of the new facilities, to locate them in accordance with a somewhat different arrangement than the old layout; hence, the work included a complete rearrangement of the engine-terminal trackage.

Details of Enginehouse

A number of features in the new enginehouse are worthy of particular mention. This structure is of the monitor type and has concrete floors, pits and foundations, brick walls and a frame roof. The sash in the end and outer circle walls are of steel, while those in the clerestory and in a row of windows above the doors in the inner circle wall are of creosoted wood. In the clerestory the windows are alternated with Transite louvers at the engine stalls, each of which is supplied with a Transite cover that can be applied from the interior if this should be required by weather conditions. Timber catwalks in the clerestory give access to the louvers for this and other purposes. Smoke jacks over the engine pits are of Transite.

Facilities for employees are provided in a row of rooms at the southerly end of the enginehouse. These include a toilet room, with modern facilities, and two locker rooms, one for engine crews and the other for enginehouse employees. Also located at this end of the structure are a storeroom, a tool room and a room housing the boiler-washing pumps and allied equipment. At the opposite end of the enginehouse is the office of the enginehouse foreman. Since it is contemplated that a future addition may be made to the structure at the north end, the foreman's office is of temporary construction. Two of the engine pits at this end of the enginehouse are equipped with wheel drop pits.

Heating System

In designing the new enginehouse it was necessary, because of the severe winters that prevail in this latitude, to devote particular care to the matter of providing an adequate heating plant. For this reason the heating system that was installed is worthy of special attention. Essentially, this is a hot-air system, with automatic electric control, in which the heated air is delivered to the engine pits through a tunnel and duct system. The heating unit is housed in a room that is built as a projection on the outer circle wall. The equipment contained in this room includes a steam-heating element, to which steam is furnished from the company's power house nearby, a motor-operated fan for distributing the heated air to the engine pits, and the automatic control equipment.

A motor-operated adjustable louver is located in one of the exterior walls of the room, through which fresh air may be drawn from the outside for the heating system. Another motor-operated adjustable louver is provided in the wall that separates the fan room from the enginehouse, so that, if desired, air may be drawn from the enginehouse interior for recirculation through the heating system. As air is drawn into the room through the louvers, it is forced by the fan through six banks of steam radiators and thence into the tunnel and duct system. A special feature of the heating system is that it incorporates controls whereby, if desired, a relatively high intensity of heat can be delivered to the engine pits to melt snow and ice on locomotives.

As the heated air leaves the fan room it enters a concrete duct underneath the enginehouse floor, which extends along the outer circle wall for nearly its entire length. From this tunnel the heated air is distributed to the engine pits through a series of ducts consisting of vitrified tile sewer pipe with concrete joints. From the main ducts, of which there are five, that connect with the tunnel, branch ducts extend at intervals to the walls of the pits. Unit heaters are provided for heating the various rooms at the south end of the enginehouse.

Boiler Washing Plant

Another feature of the enginehouse that is of particular interest is the boiler-washing and filling system. This is a modern high-pressure system in which water and steam from locomotive blowdowns is utilized to heat the boiler wash-out and filling water. The pumps and other equipment required are located in a room in the southeast corner of the enginehouse, and include three centrifugal pumps, each with a capacity of 150 gal. per min., which are powered by 40-hp. motors operating at 1,445 r.p.m. One of the pumps is for boiler-washing purposes, while the other two are normally utilized for pumping filling water, although, if necessary, one of these can be cut in as a boiler-washing unit.

In other respects the boiler-washing plant conforms to the latest practices in the design of such equipment. Other than the pumps, the principal units include a tank in which sludge from blowdowns is separated from the steam and water, the water then passing into the wash-out tank; a condenser tank in which steam from the separator tank is utilized to heat the boiler-filling water; a circulating pump; and a pump for delivering a mixture of oil and water from the fill-up tank to the engine wash rack. Automatic controls keep the water in the fill-up and wash-out tanks at the proper temperature. These tanks are located out-doors directly adjacent to the pump room, and both of them are insulated with rock wool inclosed within a jacket of wood-pulp board surrounding each tank.

Drainage System Required

Because of the presence of ground water, an unstable sub-soil condition was encountered in the terminal area, and to overcome this condition a sub-surface drainage system was constructed throughout this area. Consisting largely of field tile with open joints, this system includes branches extending to various parts of the terminal, including one under the enginehouse, another encircling the turntable pit, and others underlying the area in the vicinity of the coaling plant. They all feed into an out-fall line that discharges into a creek at a point northeast of the terminal area. For about 100 ft. at its outer end the out-fall line is on a grade of nearly 40 per cent, and to absorb the energy of the discharge, a concrete surge well is provided at the extreme end of the line, from which the water reaches the creek through an open ditch.

Although it is not strictly part of the improvement

project described in this article, a new building to house the division offices of the Canadian division has also been constructed at St. Thomas. A two-story structure of brick and concrete construction, this building is 37 ft. by 50 ft. in plan and contains offices for the superintendent, the agent, the chief and trick despatchers, the division accountant, the trainmaster and the supervisor of maintenance.

Cost of Improvements

Except for a certain amount of track work, the improvement program on the Canadian division has now been completed. For track work, including new rail, crushed stone ballast and incidentals, a total of $1,330,000 was spent in the period from 1933 to 1941, inclusive. While a considerable portion of the track-improvement work would have been carried out even though the use of heavier power had not been contemplated, the primary object of the project was to place the division in readiness to accommodate such power. Expenditures for other aspects of the program included $110,000 for the passing-track extensions, $70,000 for strengthening the Kettle River viaduct, and $432,000 for the new engine terminal. Thus, the total expenditure was $1,942,000.

The improvement project described in this article was initiated by R. J. Bowman, operating vice-president of the Pere Marquette, and was prosecuted under the general supervision of H. A. Cassil, chief engineer. The track work was under the general direction of C. J. Rist, engineer maintenance of way and A. R. Dewees, division engineer of the Canadian division, assisted by A. D. Derrough, supervisor of maintenance of that division. The work of strengthening the Kettle River bridge was performed under the supervision of C. S. Sheldon, who was engineer of bridges and structures until his retirement on December 15, 1940. The engine terminal improvements at St. Thomas were designed and carried out under the supervision of Mr. Sheldon's successor, O. E. Hager, with the collaboration of R. J. Williams, superintendent of motive power, and the field work was under the direct supervision of S. P. Wagner, resident engineer.

Johnson Brothers, Brantford, Ont., held the general contract for the engine terminal improvements. The coal dock and the cinder-handling and sand-drying plants were furnished by the Ross & White Co., Chicago, and erected by the general contractor, while the heating system in the enginehouse was furnished by the Canadian Sirocco Company, Windsor, Ont., and installed by the general contractor. The boiler-washing plant was furnished by the Gale Service & Construction Co., Chicago, while the turntable and water-treating tank were furnished and erected by the Canadian Bridge Company, Walkerville. The track changes required at the terminal were made by company forces.

Trainmen Help U.P. Design Its New Cabooses

THE Union Pacific recently placed in service 100 steel-sheathed caboose cars, built by the Mt. Vernon Car Manufacturing Company, Mt. Vernon, Ill. In designing these cars, considerable time was devoted to studying various floor plan arrangements by the research and mechanical standards department of the railroad, working in conjunction with representatives of the Order of Railway Conductors and Brotherhood of Railway Trainmen and the car builder, to provide a safe and comfortable caboose car for trainmen.

The body of the car is steel-sheathed, riveted construction with ½-in. plywood inside lining. Floors, walls and ceiling are insulated with 2 in. of flameproof insulation and ½ in. of insulation board. The cars are well designed for daylighting, with three windows on

One of the Cabooses Recently Built for the Union Pacific by the Mt. Vernon Car Manufacturing Company

each side and two at each end of the car in addition to the end door windows.

The cupola is located at the center and extends the full width of the car. Two stationary windows are installed at the front and back walls and double sliding windows on each side of the cupola. Safety glass is used in all cupola windows.

Dimensions of New Union Pacific Caboose Cars

Inside length	30 ft. 0⅞ in.
Inside width	9 ft. 2⅜ in.
Inside height at side plate	7 ft. 1 in.
Length over striker casting	37 ft. 11¼ in.
Height, top of rail to top of cupola running board	16 ft. 1 in.
Truck centers	21 ft. 7 in.
Truck wheel base	5 ft.

The end construction is designed for strength according to the latest A. A. R. requirements for passenger cars, using 10-in. 25.4-lb. I-beam door posts. The roof is solid steel construction with metal longitudinal and latitudinal running boards. The underframe is a modified A. A. R. design of all-welded construction with A. A. R. Z-26 center-sill section, and equipped with rubber-cushion draft gears.

The Cars Have Window Shades and Screens, Tiger Double-Spring Bunks and an Aladdin Mantle Lamp at the Conductor's Desk

Trucks are of the composite type, steel and wood design, with 4¼-in. by 8-in. journals, one-wear 33-in. wrought-steel wheels, and have outside-hung No. 3 A. A. R. brake beams. These trucks, with pedestals, drop equalizers and elliptic bolster springs, were selected by the trainmen because of their exceptional riding qualities after riding tests were conducted with various trucks of all-steel design.

The cars are lighted with two Aladdin mantle lamps, which burn a good grade of kerosene. Portable Tiger double-spring bunks are installed for trainmen who use caboose cars as sleeping quarters during layover time away from the home terminal. Screens and window shades are installed at all windows except those in the cupola, and the cars are equipped with screen end doors.

The interior side- and end-wall painting utilizes a two-tone color scheme: dark green on the lower portion of the walls, lockers, etc., to a distance four feet above the floor, and light green on the upper portion of the walls and on the ceiling. The floors are painted a maroon color.

Separate Drinking and Wash Water Tanks, Also Modern Wash Bowl in One of the New Union Pacific Cabooses

Ample locker space is available for the storage of clothes, bedding, tools and supplies. Other interior equipment includes separate drinking- and wash-water tanks, wash bowl, enclosed hopper, refrigerator, conductor's desk, stationery supply cabinet and heating stove.

Substandard Rates

(*Continued from page 368*)

be withdrawn. Subnormal rates should be abandoned. Uneconomic services should be discontinued.

I look forward to a superior low-cost transportation service emerging from the war. I believe current experiences will demonstrate to shippers that we should permanently retain all present cost-reducing efficiencies in the utilization of the transportation plant, such as heavy-loading, quick-unloading, etc. And I am convinced that it is to the interest of shippers generally that concessions be withdrawn. Then, free of subnormal rates, free of uneconomic services, probably free of land grant deductions—and with efficient low-cost operation through continuation of the present shipper cooperation—the railroads will be able to provide truly low-cost transportation service for the benefit of all commerce.

No Strikes at Berwick.—A huge sign at the entrance to the Berwick, Pa., plant of the American Car & Foundry Co. stands as a public pledge against strikes made by the workers through their local union. The sign, 6 ft. by 14 ft., surmounted by a large "V" 8 ft. high, lighted by red bulbs, reads: "United Steelworkers of America, C. I. O., U. S. of A. Union in this plant, is pledged against strikes. a.c.f. Workers are out for all production possible," and is signed by the executive committee, local 1864. The huge sign serves as a constant reminder to the many thousands of employees at the plant; and to the management and the nation it represents a guarantee that a.c.f. workers will keep faith.

How Railroads Rate with Public

Opinion survey, compared with one last year, shows carriers higher in popular favor—Government operation views wane—Analysis discloses nature of war-time public relations job

WASHINGTON, D. C.

IN the eyes of the public, the railroads "have done an even better job in the war emergency than a confident public expected a year ago," according to the second national survey of public opinion made for the Association of American Railroads by the Opinion Research Corporation, Princeton, N. J. Eighty-two per cent of the persons interviewed said that the railroads have done a good job since the United States entered the war, whereas the previous survey showed that only 56 per cent were of the opinion that the carriers had done a good job of preparing for the emergency.

Moreover only 12 per cent were this time without an opinion on that matter, while a year ago 23 per cent had no view. On the question of government operation for the duration, the survey indicated that 67 per cent of the people would now oppose the move—"a sharp change in public sentiment since the 1941 survey, when 50 per cent of the people said they would favor government operation in the event of war." But while much credit is thus given to the railroads for their wartime accomplishments, "only a small minority of the people consciously attribute these achievements to the fact that the railroads are being privately managed rather than run by the government." In other words, "of the 84 per cent who believe the railroads are being run better in this war than the last, *only 13 per cent mention private management as the reason for the improvement.*"

Keyed to Wartime Public Relations Problems

The survey presents the views of 2,610 people—"a representative cross section of the country's voting population." The views were gathered in personal interviews between July 10 and July 22, 1942. On some issues, the foreword said, "the intent has been to gage the *trend* of public opinion" since the 1941 survey (see *Railway Age* of January 10, 1942, page 162). "However," it went on, "this study is not strictly a 'before-and-after' survey in the sense that its essential purpose is to measure trend. Rather it is keyed to new public relations problems faced by the railroads as a result of our active participation in the war."

Following through from its finding that 82 per cent of the people now think the railroads are doing a good job, the survey heard 83 per cent saying that the carriers are doing the best they can to give good service at the present time. About seven of the 10 (69 per cent) believe the railroads have been able to handle without delay all freight offered to them since the United States entered the war. Only five per cent said they had been affected personally by delays in freight service; "but analysis of the reasons shows that in many cases this belief is due to excuses offered by merchants or others for delays in delivery or shortages of goods which they attribute to transportation difficulties."

With respect to passenger service, the survey indicated that to date the public is tolerant of late trains and other inconveniences. Only two per cent of those inconvenienced made comments which implied direct criticism of railroad management. More than one-third of the people who have recently traveled 25 miles or more by train said that the last time they made such a trip the train was late; but 91 per cent of them felt that the delay was unavoidable, most of them ascribing reasons for the delay which indicated understanding of the railroads' current problems. About a third of the travelers found trains overcrowded, but these also estimated that 30 per cent or more of the passengers were soldiers.

8 Per Cent of Passengers Critical

Observing that "a basic element in sound public relations is the treatment received by the public on trains and at stations," the survey notes how eight per cent of all recent train travelers said they had experiences on their trips which caused them to be critical of the personal treatment received. In that connection the report sounds this warning: "While eight per cent is a small proportion of the total, yet it amounts to more than one and one-half persons per average coach load, and approximately one person per average Pullman car, which indicates that there is room for improvement in the personal services afforded train travelers by the railroads and their employees."

The public's appreciation of the job the railroads have done "is not generalized or vague," the survey found, citing the fact that of the 82 per cent who said the carriers were doing a good job, 35 per cent mentioned the railroads' success in handling so much war material and keeping civilian shipments moving also; 34 per cent commented favorably on the railroads' determination to transport military supplies even when this means sacrificing regular business; and 24 per cent referred to the "tremendous job" the railroads have done in moving troops. On the other hand, only seven per cent of those who said the railroads had done a good job (four per cent of all respondents) made any reference to the "phenomenal achievement" in moving more than 700,000 barrels of oil a day to the East by tank car.

Oil-Movement Story Deserves More Telling

In the latter connection, it was pointed out at the A. A. R. that the survey was made before the oil movement had obtained the publicity which has attended it in recent weeks. Nevertheless, the survey suggested that the story of the oil-moving job may deserve more telling to the public. Later on it observed that while the showing was "not alarming," there was certainly "no reason for gratification in the fact that only four per cent of the people (six per cent in the East)" mentioned the job.

On the question of railroad earnings, only nine per cent of those with opinions on the subject thought that the railroads were making too much money. Half of the people "are aware that railroad rates were raised last winter; but only six per cent of the total public, or 12 per cent of those who realize that rates were raised, are critical." Forty per cent of the total understand that

there was a passenger-fare increase, while 31 per cent are aware that freight rates went up. Only nine per cent feel that rates of either sort "have gone up a whole lot." Thirty-eight per cent of all persons interviewed (or 76 per cent of those who are aware of increased rates and fares) believed that the increase was justified. Of those who knew about the increases, 43 per cent attributed them to the wage increase, 12 per cent to increases in costs of materials and fuel, and six per cent to rising taxes, and 28 per cent to "rising costs all along the line."

The survey calls all of the foregoing "heartening evidence of public understanding of railroad difficulties and public appreciation of railroad performance to date." It goes on, however, to list other findings which give "equal emphasis to the fact that the public looks to the railroads to keep up the good work." In the first place, "even more is expected of the railroads than was the case a year ago." More than three out of four are of the opinion that the carriers will be called upon to handle a great deal more traffic before the end of the war; and three-fifths of the people believe the railroads will be able to meet all demands.

War-Time Public Relations Job Centers in Care of Passengers

This report discloses that one out of every dozen passengers the railroads are handling is dissatisfied with his treatment. With passenger traffic at an all-time peak, the total number of people thus not befriended is disturbingly large.

While the carriers are credited with good performance, few people ascribe that result to private management.

Extraordinary service given to petroleum traffic has attracted only minor attention.

Few people understand that it is government policy which prevents the roads from getting the equipment they need.

There appears a tendency to take superior railroad service for granted.

Government operation still has substantial support.

Some people think freight is being unduly delayed, which it isn't.

If there should be a major car shortage, who will be blamed for it?

"Danger Points" Indicated

"Almost the worst thing that could happen to railroad public relations," the report warns, "would be for the public to start *taking the railroads' achievements for granted.*" Listed first among the "danger points" in that connection is the aforementioned failure of most respondents to mention the oil movement. Then there is the fact that "one third of the people are still favorable to government operation of railroads in wartime," even a fourth of those who think the railroads have done a good job being of that mind.

The survey found little public awareness of the railroads' desire to buy additional equipment, and only "nominal realization" of the effect of priorities. Seventeen per cent of all respondents said that an equipment shortage would prevent the railroads from meeting all demands upon them, but only 21 per cent of that 17 per cent (four per cent of the total) mentioned government allocation policies as the reason for their belief that the railroads will not have enough equipment. This is appraised as a situation "which might easily result in censure from the public in the event a major car shortage develops before the end of the war." Also, "in terms of popular good will, the railroads are also vulnerable if the public should begin to doubt that they are doing a good job."

The favorable shift in sentiment on that point from the 1941 survey is cited as evidence of the ease with which the public can change its mind. "One of the key factors in this problem," the survey advises, "is to convince the public more fully that freight is *not* being seriously delayed." Here attention is called to the fact that 27 per cent of the people have no informed opinion on this question, while 31 per cent of those who do think there have already been serious delays in freight handling. "The strongest sentiment for government operation," the report continues, "is found among those people who believe there have been delays in freight handling. Virtually half (49 per cent) of these people favor government operation, while only 23 per cent of those who do *not* believe there have been delays are favorable to government operation. Even 39 per cent of the people who have *no opinion* as to whether freight delays have occurred say they favor government's taking over."

Doubts Must Not Be Allowed to Arise

Another "hazard to the railroads' public relations" will arise if the people "should begin to think the railroads are not able to meet all future wartime demands that may be made on them." Twenty-one per cent have formed no opinion on this question, but of those that have, 39 per cent have doubts of the railroads' ability to meet all demands. Forty-two per cent of the latter favor government operation as the solution, while it is favored by only 27 per cent of those who expect the railroads to make the grade. The survey foresees that the "greatest hazard" would arise if the public should begin to doubt that the railroads are doing the best they can under the circumstances. Only 17 per cent of the people have such doubts at present, but half of this group are favorable to government operation for the duration.

Moreover, "despite broad public tolerance," there is still "more than nominal criticism of regular service for civilian purposes." The survey suggests that much of this can probably be allayed "by constantly emphasizing the popular policy that war traffic always has right of way with the railroads; and by keeping the public convinced that the railroads are sincerely doing everything they can to serve their regular patrons along with handling war transportation."

On most of the issues in the survey, the report notes "only small differences" between various sections of the country, between men and women, various income groups, age groups, and size of community. "This," it says, "is in marked contrast to the results of the survey in 1941," adding, however, that "the differences in awareness of the facts and approval of the railroads' achievements that do exist today show that the least informed groups are still women, lower income people, young people, and residents of the South."

Railroads Recruit Women Workers

They have made good on British Railways on many jobs heretofore considered suitable only to men

By Marie Deems

IN August there appeared in the Female Help Wanted classified advertising columns of a New York City daily the following:

> WANTED young women between the ages of twenty and thirty for positions in the transportation industry. Beginning salary $98.50 per month with increased pay after training period. Reply with full particulars to Box 42.

For the first time in this war a railroad has advertised, it would seem, for women employees. This is an example of the many methods the railroads of the United States are using to recruit the women workers that are needed to fill up the ranks of men drafted into active service, Army, Navy and Marine. And replacements are also necessary for those railwaymen who have gone into other industries vital to the prosecution of the war.

Draft Will Get More Insistent

In a recent address Brigadier General Lewis B. Hershey, Selective Service Director, said, "We have learned there are very few irreplaceable men and in industry, agriculture and in government we have got to train people to replace draft-age men and we have got to do it quickly. In the past, Selective Service has protected vital industries against loss of manpower, but from here on when the Army needs the man there will be no waiting until he is replaced."

Fox Photos, Ltd.

Women Handling Express on British Railways

As long ago as last January, a number of railroads set in motion the machinery for (1) classifying their employees as to draft status, (2) making a survey of where additional man power could be found with or without training and (3) possible piping of a reservoir of women power for replacement as well as for increasing needs.

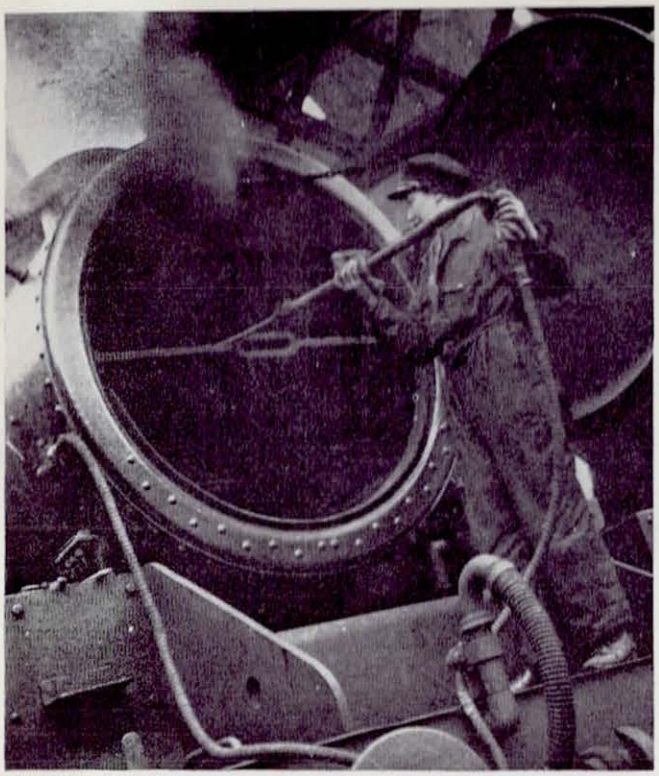
A moderate estimate of the number of new employees needed for the coming year in the railroad industry is about 300,000. Already the pinch is being felt in the maintenance of way departments and also in the locomotive and car repair shops. In accordance with the agreement between railroad management on one side and the brotherhoods and shop crafts of the American Federation of Labor on the other, furloughed men must be called back to work first. In some few instances, retired employees are available. But a vast source of supply is the women of the country.

During the last war there were some hundred thousand women taken into railroad service. Today there are about fifty thousand employed in many departments; the majority are in clerical jobs. A few hold executive positions to which they have been promoted through the years. On one Eastern railroad is a woman telegrapher who for 25 years has refused to take a vacation because she is afraid that a man substitute might spoil her spick and span office with tobacco juice.

A Large Supply to Draw From

A recent census shows that there are 33,000,000 women today in the United States between the ages of 18 and 50. Only about one million are employed in war industries and at least five or six million more may be available for service. To draw from this supply the railroads are going full speed ahead, both individually and collectively. A Man Power Committee has been set up under the chairmanship of Dr. J. H. Parmelee, director of the Bureau of Railway Economics of the Association of American Railroads. This committee is prepared to channel all information on this subject to the railroad industry. Many railroads have operated employment bureaus over a period of years and there seems little reason to believe that they cannot solve their own employment problems with the machinery at their disposal. They may find it advisable to pool their information and establish new standards to fit the greater employment of women. They will also be able to profit from the experience of the aviation and munition industries where women are giving satisfaction.

One railroad several months ago started a survey of their former women employees. Today they know which are available to work part or full time. Another road has already graduated one class of women in ticket selling and will soon start another. Members of the first



British Press Photo

Cleaning Locomotive Superheater Tubes in London Terminus

class are now selling suburban tickets in a busy terminal. This same system is putting on women to replace men messengers and clerks. An overalled contingent of sturdy young women is working at loading and hauling in a big junction yard. When and if needed women will be given their chance all along the line.

No one would venture to say that this or that job cannot be done by a woman. Certain types of women are suited to certain types of jobs, just as men are. Moreover, American women are nothing if not adaptable; and today they are consumed with a need to do their share in a war where victory is only possible if men and women give their utmost. During the last decade millions have learned to accept the discipline of a business world. More recently, in addition, women of the leisure class have voluntarily accepted the discipline imposed on them by war work. And now they are ready of their own accord to join in the conduct of the war.

A nation-wide industry essential to victory and the peace, the railroads needs the services of women of high calibre and zeal. As employees they will find exceptionally good working conditions and equality of wages and benefits in an occupation which carries on with a minimum of glamour and gold braid—and delivers the goods.

Many Women on British Railways

More than fifty thousand women are working on railway jobs in England, one for each mile of track. They are in all departments. Forty thousand of them are replacing men called to the colors. Nightly danger of Nazi air raids and their resultant destruction has made railroading in England a dangerous occupation. And yet English women from sixteen to eighty-three, married and single, realizing that transportation is part of the war offensive, are working on day and night shifts.

They are porters who carry your bags at stations by hand or truck. They collect tickets and operate signals. They paint rolling stock and clean and lubricate trains. In the shops they weld with electricity and cut with acetylene. They operate cranes and machine tools. Some machine operators started as cleaners and becoming interested were given special training courses.

In the maintenance of way department, they clear ice from switches and creosote wooden timber for railroad use. The London & North Eastern has ten thousand women employees and six hundred are in maintenance jobs.

They help installers, wire men and repairers and work in signal and telegraph gangs.

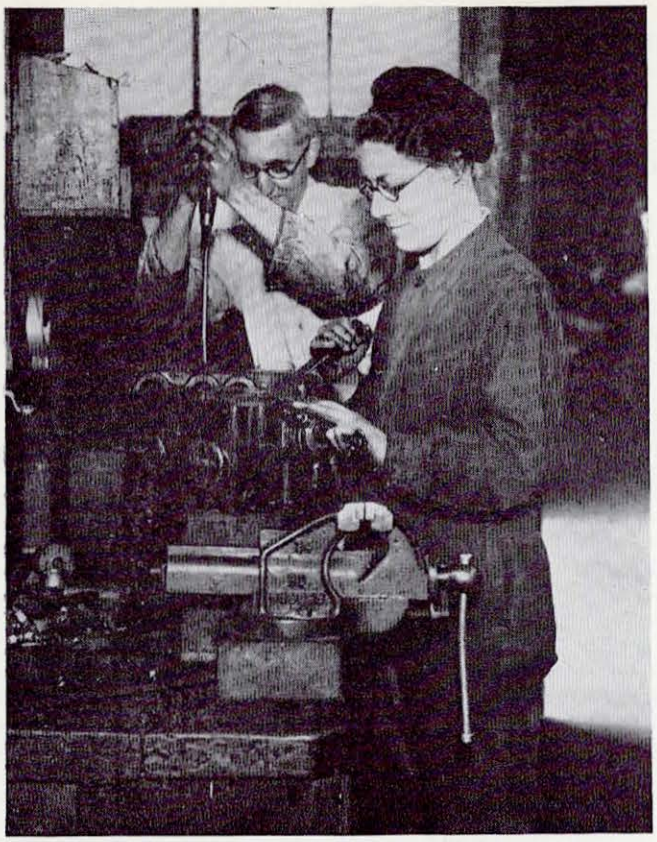
These railwaywomen have all entered railroad jobs through the three methods employed in England for the recruitment of women's services. From the outbreak of the war until after Dunkirk in 1940 the first method was sufficient; namely, that of a call for volunteers similar to the present means now being used by the transportation industry here. Next came the transfer of workers from non-essential to essential industries, and, third, were the compulsory methods of directing the work of women.

The Training Problem

It is possible that only one method, the recruiting of volunteers will be sufficient to meet the emergency in the United States. At any rate the railroads are proceeding on that basis. If they can choose and train as many women as they may need to distaff their many departments with more than a hundred different occupations, government assistance will not be necessary. Right behind the armed forces are the railroad employees essential to the transportation of men and munitions. Every railroad employee is on the firing line; and as

British Press Photo

Reclaiming Worn Parts in L.M.S. Repair Shops



British Press Photo

Woman Worker in L.M.S. Motor Truck Repair Shop

in every other war, in order to win, it is essential to have trained replacements.

Our excellent existing educational facilities can be helpful in this critical time. Several private trade schools in various parts of the country are training personnel especially for railroad service. Railway apprentice schools can draw girls from high schools and colleges where mechanical drawing and shop practice are taught; additional instruction can be offered by drafting retired and disabled employees as teachers. Aptitude tests are short cuts to classification. An American doctor has devised tests which are used to tell in short order whether English women workers could learn shop work. Seamstresses who use patterns and sewing machines were found to be especially suited. The period of training varies on the British railways. In most instances, however, it is a matter of weeks, comparable to what is now being done in training workers for the war industries in this country.

Fitting Hours to Personnel

Each railroad department in this country must decide on its own program of supervision for women, just as it does for men. It must also determine the number of hours women will work for optimum results. In England women give maximum output on night shifts, possibly because they are thus able to take care of their homes in the daytime. That we will need the housewives of this country there is little doubt. According to reports from Washington some sections of the United States where there are many war industries will require practically every woman who can take a job.

Part time employment in some sections may be the solution. More frequent alternation of working time with rest periods may make for better work. Company operated cafeterias, instead of the time honored dog wagon, and additional rest rooms may have to be arranged. Working conditions will vary with the locality and the type of work.

Women work with their hearts as well as their heads. Their loyalty and pride of accomplishment are tools they neither take from nor leave in the storeroom. And last but not least their example may spur certain shopmen to come to work on Monday after the Sunday before. Women in railroading just mean more women power to help man power. "The Army has its WAACS, the Navy has its WAVES; so why shouldn't the railroad have its WITS (women in transportation)," says the stove pipe committee.

Communications . . .

Pensioned Too Soon

WRENSHALL, MINN.

TO THE EDITOR:

Understand a start has already been made to bring before the Congress the necessity for providing a minimum pension that would afford a living to those of us who were pensioned off previous to August 29, 1935. The Northern Pacific, for whom I worked steady from April, 1911, to July 15, 1935, allowed me a pension of $29.61 per month. This is inadequate to even feed myself and wife, especially now with advancing prices.

I worked 24 years for the N. P. and 20 years on other roads, making 44 years of railway service. Had I been allowed to work until August 29, 1935, I would have come under the new law and would have been given credit for 30 years in figuring my pension, thus making it about $45.

This seems discriminatory and wholly unfair. I feel that at least $50 per month should be allowed us, as we are not eligible for other old age security. Please push this through. This is my appeal to do something quick, as I am now 78 and wife 72 and ought not to be obliged to labor for our living. Kindly furnish me with names of several Congressmen whom you know to be favorable to this, and I will write to them also.

EDWARD P. WIGG,
Veteran O. R. T.

From a Conductor Popular with Passengers

BAKERSFIELD, CALIF.

TO THE EDITOR:

This will acknowledge receipt of your issue of August 8 with the item on page 235* of personal interest to me.

I thank you very much. I am pleased to know that my efforts have interested others enough to write such an item, and that your company was interested enough to publish and also to mail me a copy. What Mr. Bagley said is quite true; I do like my work and the company I work for very much. I have always tried to treat others as I would like to be treated myself. My work is very interesting and I meet so many different kinds of travelers.

I think right now is a very trying time for so many, as thousands of people have loved ones in the service and naturally they are worried and may be a little out of sorts when they board our trains. If I can cheer them up with a cheerful good morning and a pleasant smile, I feel I am helping them and making a friend for myself and my company. For, after all, I am only doing what I am paid for—get business and retain it—and what the public has a right to, "the very best which the Santa Fe is giving."

F. C. ALLISON.

* The reference is to a letter we published from a Santa Fe patron, in which he gave high praise to Mr. Allison, a Santa Fe conductor, for his considerate and courteous treatment of passengers.—EDITOR.

Railroads-in-War News

Refrigerator Car Pool Inaugurated

Plan worked out by ODT, car lines and A.A.R. became effective September 1

Inauguration on September 1 of a plan for pooling the operation of all refrigerator cars was announced on September 2 by the Office of Defense Transportation. Designed to "forestall any refrigerator car shortage for handling the nation's perishable food supply," the plan is the outgrowth of a recent Chicago meeting between representatives of ODT, refrigerator car owners, and the Association of American Railroads, whose Car Service Division's Refrigerator Car Section is expected to play a major role.

The plan is operating under the direction of an executive committee composed of representatives of railroad-controlled car lines, privately-controlled lines, shipper owners, and railroad car lines. The committee, as the ODT announcement put it, has named as "manager of its organization" R. B. Hoffman, former superintendent of transportation of the Pacific Fruit Express Company, who on September 1 became manager of the Refrigerator Car Section, as noted in the "Railway Officers" columns of this issue. "The pool organization," the ODT announcement also said, "will work in close cooperation with the Car Service Division of the A.A.R., and will be closely supervised by ODT's Division of Railway Transport."

Mr. Hoffman is also listed as the executive-committee member representing Pacific Fruit Express, other members being: C. E. Kammann, American Refrigerator Transit Company; H. B. Spencer, Fruit Growers Express; K. C. Underwood, Merchants Dispatch Transit Corporation; Cyrus L. Philipp, General American-Union Refrigerator Transit Lines; J. B. Scott, Armour Car Lines; J. J. Mahoney, Atchison, Topeka & Santa Fe. W. C. Kendall, chairman of the Car Service Division, was named chairman ex-officio.

Anticipating results to be expected from the new set-up, the ODT announcement had this to say: "ODT officials pointed out that radical changes in the distribution of perishable products, including the discontinuance of coastwise movements and the increasing curtailment of long-haul truck service, have threatened to place an increasing burden on the rail carriers. This condition, accentuated by the scarcity of critical materials for the contruction of additional refrigerator cars, has made necessary the establishment of a refrigerator-car pooling system. Under the pooling plan refrigerator cars controlled by one railroad system where a surplus exists can be forwarded when necessary to a competitive line for loading. Through the efficient handling of the existing refrigerator car supply, ODT pointed out, much wasteful cross-haul movement and duplication of distribution in the operation of competitive car companies can be avoided, and the increasing demands on the railroads can be more adequately met."

Suggests Joint Inspection Plan at Gateways

Terminal delays by railroads at interchange points can be greatly reduced by a joint mechanical inspection plan at gateways where a delivering road turns over cars to a connecting line, Frank J. Swanson, mechanical assistant, Division of Railway Transport, Office of Defense Transportation, told the Northwest Carmen's Association at St. Paul, Minn., on September 3. Mr. Swanson asserted that "with the manpower situation growing more critical, time-saving practices such as this joint inspection program, undoubtedly will have to be extended to all railroads."

Also, he suggested that each railroad should now have a regular equipment-repair program which should contemplate that cars "should be watched, and when in need of heavy repairs, they should be taken in promptly, and the program planned to the capacity of the railroad's facilities."

Establish Joint Information Offices in Three Cities

Establishment of the first joint information offices under the Office of Defense Transportation's truck conservation program has been announced by ODT. The offices are located at 10 North Clark St., Chicago, Ill.; 400 S. W. Ninth St., Des Moines, Iowa; and 1424 16th St., Washington, D. C.

Rail Labor Leader Gets OPA Job

Glenn R. Atkinson of Covington, Ky., former legislative representative for the Brotherhood of Railway Clerks, has been appointed to the staff of the Office of Price Administration where he will serve as "liaison officer between OPA and the railroad brotherhoods." Two other labor leaders were also appointed to act in similar capacities with respect to the American Federation of Labor and the Congress of Industrial Organizations.

Finds Railroads Ready for Peak

Will meet all demands, ODT says—traffic channels system explained

"Facing the heaviest movement of revenue freight traffic in history, America's railroads stand ready to meet autumn peak demands with more than 200,000 miles of trunk lines virtually clear of congestion," said a September 2 statement from the Office of Defense Transportation. As of midnight August 31, reports on car and train movements of 108 Class I railroads, compiled by the Traffic Channels Section of ODT's Division of Traffic Movement, "showed green lights burning for the mounting flow of war freight."

It is the traffic channels system, inaugurated four months ago, which permits the Traffic Channels Section to prepare daily studies on the basis of operating data submitted by railroads. These studies, the statement said, "indicate threatened bottlenecks, particularly over large areas, long before any serious congestion can develop"; and "at the first sign of congestion, cooperative action with the railroads involved makes it possible to prevent serious trouble."

Operation of the system has been speeded up in recent weeks by the installation of three commercial telegraph circuits in ODT's Washington headquarters. Previously, data submitted by the railroads was sent by air mail. The improvement in the transmission system has made possible a saving of 24 hrs. in the time required for compilation of car and train movements covering a single day.

To indicate the "magnitude" of freight traffic at the present time, "with the autumn peak approaching," the ODT statement cited figures for a single day, "picked at random during the last week." On this day, for the 24 hrs. from midnight to midnight, the 108 reporting railroads dispatched 23,578 trains with 1,408,964 cars over all divisions, or an average of 59 cars per train.

"The record of these movements, when broken down by individual railroads, operating districts and important gateways," the statement went on, "gives ODT's expert analysts the information that enables them to know when and where a bottleneck is threatened. On each of the reporting railroads, immediately after midnight, the railroad telegraph wires hum with the beginnings of the traffic channels report. The operating districts and the gateways on each road send to a central

(*Continued on page 380*)

Pelley Discusses Rail Oil Movement

Hopes for 800,000 barrels a day to east coast; sees shortage of engines

Testifying before a special unofficial House committee investigating the petroleum situation on the east coast on August 31, J. J. Pelley, president of the Association of American Railroads, declared that the railroads would be doing well if they can maintain a daily movement of 800,000 barrels of oil to the east during the coming fall and winter months. He went on to explain to the committee that the bottleneck, if any, will come in a lack of locomotives rather than in the ability to obtain the necessary tank cars.

After telling the committee that everything is being done to haul oil to the east coast that can be done as far as the railroads are concerned, Mr. Pelley pointed out that because of the shortage of steel and other materials, the railroads would come up to the end of this year with 400 to 500 less locomotives than they had on order. He also estimated that at present the carriers are using about 70,000 tank cars for the east coast movement out of a total of about 150,000 tank cars in the entire country.

Asked to comment on the possibility of using the synthetic rubber "Mareng" cell in box cars for the hauling of oil, details of which were given in the *Railway Age* of August 22, page 313, Mr. Pelley said that it was purely in the experimental stage and that the possibility of explosions due to leakage was still under consideration by various government agencies. It was his opinion that the so-called "rubber" box car would not be available to relieve the threatened fuel oil shortage this winter. Moreover, he cautioned that the problem of motive power was also present in the case of the box car.

Mr. Pelley also praised the present organization of the Office of Petroleum Coordinator, the railroads, and the oil companies which has been set up to handle the movement of oil to the east coast. He said that it was working perfectly and that he could see no need for any change in it.

Meanwhile, the Petroleum Coordinator for War announced that a total of 817,980 barrels of petroleum and petroleum products were shipped to the Atlantic seaboard by rail during the week ended August 22.

This was a decrease of 12,840 barrels daily from the record volume moved during the week ended August 15, when car loadings averaged 830,820 barrels per day. The decrease was due, in part, it was said, to floods which washed out a number of railroad bridges.

In handling the movement the 31 oil companies loaded 27,266 cars. Including those cars that were on the way back west for reloading.

As another step in the effort of the government to get more oil to the east, President Roosevelt has issued a proclamation granting the right of eminent domain under the Cole Pipe Line Act to the Project Five Pipe Line Corporation to expedite the construction of a 150-mile pipe line from Eldorado, Ark., to Helena.

Maximum Loading Rule Is Postponed

The effective date of ODT general order No. 18—requiring cars (with some exceptions) to be loaded to visible or stenciled capacity — has been postponed from September 15 to October 15, to permit the order to be revised, embodying suggestions for its improvement. The order, as originally promulgated, was reviewed in these pages, August 22 issue, page 313.

ODT Appointment

Ernest G. Yehling, of St. Louis, Mo., has been appointed supervisor of rail terminals, at St. Louis, Mo., on the field staff of the Division of Railway Transport, Office of Defense Transportation. Mr. Yehling, formerly assistant superintendent of the Wiggins division, Terminal Railroad Association of St. Louis, has been with that railroad since 1902.

ODT Found Roads Ready to Step Up L.C.L. Loads to 10 Tons

Railroads were ready for September 1's automatic step-up to a 10-ton minimum loading for l. c. l. cars, said an August 31 statement from the Office of Defense Transportation. As the statement pointed out, this is the final weight provision of General Order No. 1 which got under way May 1 with a six-ton limit, and rose to eight tons on July 1.

As the ODT has said from time to time, the present press release repeated that the order has already resulted in "a weekly saving of more than 65,000 closed freight cars in l. c. l. traffic." It went on to say that "ODT officials paid tribute to the manner in which the railroads have worked out their l. c. l. operations."

New Set-Up for OPA's Activities in Transport Field

Robert A. Nixon, member of the Wisconsin Public Service Commission, has been appointed director of a newly-created Transportation and Public Utilities Division of the Office of Price Administration. The new division, "which will be responsible for taking all necessary action relating to transportation and public utility matters on behalf of OPA," will be under the jurisdiction of Dexter M. Keezer, deputy Administrator in charge of general services.

John H. Eisenhart, Jr., will head the transportation branch of the new division and also will act as transportation counsel. Harry R. Booth, until recently chief counself of OPA's fuel branch, will head the public utility branch and similarly will be public utilities counsel. Mr. Eisenhart has been handling transportation matters for OPA for more than a year.

Says Coach Seats Won't Be Rationed

No such plan contemplated by ODT, according to Director Eastman

Rationing of unreserved seats in trains is not being contemplated, Joseph B. Eastman, director of the Office of Defense Transportation, declared in a round-table radio discussion in Washington, D. C., September 3. One of the reasons for this, Mr. Eastman explained, is that "it would take an army of employees all over the United States to administer and enforce restrictions on travel in unreserved seats in coaches."

"However," he warned, "we can and we will, wherever necessary, establish a system of priorities so that those who must travel on war business or on other vital errands will be sure of reservations. There is such a system now for air-line travel, and a similar system could be applied to the railroads." The alternative, Mr. Eastman said, is a voluntary restriction of travel by the public to trips of real necessity or importance. Mr. Eastman urged that travel be held down to a minimum.

"By doing this," he continued, "the public can help our armed forces, our railroads and those traveling on war work. It will be a distinct contribution to the war effort, and one which, in reality, will involve very little hardship. Week ends and holidays are particularly bad times to travel."

Mr. Eastman disclosed that surveys made by the Office of Defense Transportation indicate that 40 per cent of all travel today is for pleasure. Pleasure travel, he commented, is all right if it does not interfere with necessary travel.

Shippers and receivers of freight, Mr. Eastman stated, can also help the transportation situation by loading cars more heavily and more promptly and by unloading them more quickly. The great majority are co-operating splendidly, he added, but "there is still more for some of them to do."

Dr. Julius H. Parmelee, director of the Bureau of Railway Economics of the Association of American Railroads, pointed out that railroad passenger traffic, as measured by passenger-miles, and freight traffic, as measured by ton-miles, have just about doubled since war broke out three years ago. Carloadings so far this year have been approximately 36 per cent more than they were in the corresponding period in 1939, he said.

The tremendous increase in rail traffic, R. B. White, president of the Baltimore & Ohio, declared, is due not only to military movements of men and materials, but also to the diversion of traffic from other carriers to the railroads.

"The war has forced the discontinuance or curtailment of many of our accustomed transportation services," Mr. White said. "Commercial water service between the coasts of America through the Panama Canal has been affected. Our fleet of

coastwise ships has been partly withdrawn from commercial service for military purposes or for operation in foreign service. Movements which once were taken care of by these vessels are now largely made by rail.

These shifts in traffic, according to Mr. White, "put upon the railroads a heavy responsibility which they have so far been able to meet." There will be even greater transportation demands, he predicted, "but whatever they may be, the railroads will endeavor to meet them as completely and as satisfactorily as possible."

Short-Notice to Cancel Fares on Requisitioned Lines

Railroads and their tariff publishing agents have been authorized by the Interstate Commerce Commission to publish on one day's notice passenger-tariff supplements covering the suspension of service on lines requisitioned by the War Production Board in connection with its metal-salvage operations. The permission is subject to the requirement that the supplements include the following notice: "Line requisitioned by War Production Board. Service suspended." Also, it is stipulated that if and when a certificate of public convenience and necessity authorizing abandonment of any such line is issued, the fares, rules and regulations applicable to and from points on the abandoned line must be canceled on notice required by the certificate and order.

ODT Coordinates Two Bus Lines

Two more special orders coordinating bus operations were issued on August 29 by Director Eastman of the Office of Defense Transportation.

Special Order No. B-16, effective Sept. 15, directed Interstate Transit Lines, an affiliate of the Union Pacific, to discontinue its one schedule daily between Sioux City, Iowa, and Odebolt, and directed Algona Bus Lines to re-route one of its two daily schedules between Sioux City, Iowa, and Fort Dodge, over the abandoned route. The saving will be 5,160 bus miles of scheduled service monthly, it was stated.

Special Order No. B-17, effective September 3, directed the Allentown & Reading Transit Co. and the Reading Transportation Co., an affiliate of the Reading, which operate on substantially the same route between Allentown, Pa., and Reading, each to withdraw one round-trip schedule daily. The companies also were ordered to stagger schedules, use terminals jointly, and interchange tickets. The saving will be 4,200 bus miles of scheduled service monthly, the ODT declared.

Eastman Asks Curtailment of Travel Over Labor Day

Director Eastman of the Office of Defense Transportation this week asked the public to refrain from holiday pleasure travel over the Labor-Day weekend.

"Travel by railroad and bus," Mr. Eastman said, "has been growing tremendously, particularly in the East and South. The general growth resulting from the great productive activity of the country has been swollen by the constantly-increasing troop movements, by the travel of soldiers and sailors on leave or furlough, by the visits of friends and relatives to their camps, and by the curtailment of travel by automobile because of gasoline and rubber conditions. During the past month the stations, trains, and buses have often been overcrowded, and if travel rises to any higher peak, discomforts may be aggravated to a point where they will, in many instances, become more than mere discomforts and will be serious. This is why I feel it necessary to warn the public in those regions where the passenger problem is known to be acute, to remain at home over Labor Day, if they can.

"There is no objection to holiday travel in territories where adequate passenger facilities are available, and there are some such places, more particularly in the West. However, those contemplating travel should contact their bus or rail ticket offices in advance to find out what the conditions are likely to be, and the better thing to do is to resolve all doubts by deciding not to travel. Of course, it is just as necessary to save rubber by avoiding trips in private automobiles."

Loading Order Suspended as to Barge Traffic

Acting "to facilitate transportation of freight by barge," the Office of Defense Transportation has suspended the maximum loading provisions of General Order No. 18, as they apply to certain movements in connection with water traffic. The general order, which becomes effective September 15, will require that civilian freight, with certain exceptions, be loaded to the full visible capacity or to the marked load limit of a car, whichever is the lesser.

The suspension as to barge traffic comes in Suspension Order ODT No. 18-1, also effective September 15. As a result, shipments loaded into a car by a water carrier subsequent to a movement of such shipments by water, and for the furtherance of such shipments, need not meet the maximum loading requirements. This applies to water-rail and rail-water-rail movements. Also exempt will be such portions of shipments which, having been transported by water, are left over from the loading to capacity of one or more cars, and are required to move as part of such shipments. The suspension does not cover shipments arriving from overseas and loaded into cars for movement to destination by rail.

75 Per Cent Rule for "No-Bill" Coal Cars

Citing the need to further conserve the use of open top cars, W. C. Kendall, chairman of the Car Service Division, Association of American Railroads, has sent a letter to the chief operating officers of the coal loading roads directing that a 75 per cent rule covering the placement of cars for coal loading be made effective September 12, in lieu of the present 100 per cent rule.

Under this rule, no open top cars shall be placed at mines when the number of "no-bill" open top cars the mine is holding is equal to or in excess of 75 per cent of the daily rated capacity of the mine. Mr. Kendall also said that it should be definitely understood that the new rule is in no way intended to permit increased holding of "no-bills" in those cases where mines may already be restricted to a lesser number of such holdings than permitted under the 75 per cent rule.

Mr. Kendall cited increasing demands for open top cars and pointed out that shippers generally, government officials and others concerned in the War Production program have been given assurance that the railroads are ready and able to adopt every precautionary measure to the end that there shall be maximum efficiency in the use of open top equipment.

Finds Railroads Ready for Peak

(Continued from page 378)

point on the railroad the story of the number of trains dispatched, the number of cars received and moved forward, the number loaded on the district, the number on hand, and other operating information.

"The figures are set down on a report form in coded columns. When each district on the railroad has been heard from, the form is turned over to the commercial telegraph office. Then the transmission to ODT begins. At 11 o'clock each morning the transmitters in ODT's headquarters start feeding out the gummed tape. A code letter, then a number or a series of numbers. These are cut and pasted on forms identical with those compiled in the headquarters office of the reporting railroad. By 8 p.m. daily the last report from the 108 railroads has been completed. By that time 13,000 sets of figures have been handled, representing all car and train movements."

Tank Trucks Get Some Relief from OPA Price Orders

Tank truck operators who have been shifting their vehicles to new routes and territories in order to meet emergency transportation needs have been authorized by the Office of Price Administration to charge rates above the levels of last March — subject, however, to OPA adjustment. The plan, said the OPA announcement, was worked out after conferences with the Office of Defense Transportation.

As a protection to the general price level it provides that operators, in reporting their new rates, shall include a statement from the person paying the transportation charge "that the increase would not be made the basis of a commodity price increase or petition to OPA to raise the ceiling of any commodity under price control." The plan is contained in Amendment No. 18 to Supplemental Regulation No. 14, effective September 1.

At the same time, OPA also announced that it had exempted from price control the rates and charges for stevedoring and for car loading and unloading when these services are supplied under contract for any war procurement agency. This exemption is contained in Amendment No. 1 to Revised Supplementary Regulation No. 11, effective September 1.

GENERAL NEWS

Eastern RRs Refuse Firemen's Wage Bid

Suggest demands for pay and working rule changes go to National Mediation Board

Extended conferences between a committee representing the eastern railroads, of which H. A. Enochs, chief of personnel of the Pennsylvania, served as chairman, and representatives of the Brotherhood of Locomotive Firemen & Enginemen, led by D. B. Robertson, president of the union, terminated on September 2 without agreement. Meetings have been held in New York at intervals since June 23, as reported from time to time in the news columns of the *Railway Age,* to discuss changes in rates of pay and working conditions proposed by the union. The nature of these proposals was summarized on page 33 of the July 4 issue of this publication.

Definite rejection of the union demands was decided on by the committee representing the railroads after several compromise suggestions it advanced were turned down by the union leaders. In announcing this decision, the railroad committee offered to join with the union in submitting the controversy to the National Mediation Board under the terms of the Railway Labor Act.

Formal rejection of the brotherhood's proposal was served on Mr. Robertson in a letter in which Mr. Enochs said, "Although we viewed your wage and other demands as being particularly inappropriate at this time, nevertheless, to the end that there should be no curtailment of the essential co-operation between management and employees in the railroad industry, we advanced several compromise proposals. We regret that none of our proposals afforded an acceptable basis for settlement.

"Your wage demands, although denominated 'reclassification of rates of pay,' actually would result in varying and substantial wage increases and are untimely, particularly coming so soon after the general wage increase of 76 cents per basic day granted to such employees only nine months ago. Also, we cannot agree that there is any necessity for the employment of additional firemen on certain types of locomotives. Neither from a safety standpoint nor otherwise is this demand justified and certainly as a 'make work' proposal it has even less justification now than when first proposed.

"Under the circumstances of our inability to work out some reasonable compromise, notwithstanding our protracted conferences and mutual efforts, we regret being compelled to advise that the Eastern carriers, represented by this Committee, must decline the wage increases requested as well as the other proposals of the Brotherhood of Locomotive Firemen and Enginemen accompanying its notice served under date of May 10, 1941."

Identical proposals also were made by the union to the western and southeastern railroads. A committee representing the southeastern lines participated in the conferences in which the eastern lines were engaged until the latter part of August, when it withdrew to submit the controversy to the National Mediation Board, which also has been called upon to consider the demands made on the western roads. A hearing before the Board at Chicago is scheduled for September 22.

Labor Leaders Want Three Men on Mediation Board

George M. Harrison, president of the Brotherhood of Railroad Clerks, T. C. Cashen, president of the Switchmen's Union of North America, and J. G. Luhrsen, executive secretary of the Railway Labor Executives' Association, called on President Roosevelt last week to ask him to appoint another member to the National Mediation Board in place of Otto S. Beyer who is on leave while serving as director of the Division of Transport Personnel, Office of Defense Transportation. N. M. B. gave Mr. Beyer a leave of absence so that he might accept the ODT appointment. The labor leaders are understood to have told the President that N. M. B.'s work cannot be handled with sufficient expedition by only two members.

"Vox Pop" Will Feature Cedar Hill Yard Men

Six New Haven employees will give the answers on the Columbia network's coast-to-coast broadcast of "Vox Pop" at 8 p. m., E. W. T., on September 21. The program—planned as a tribute to American railroads and their part in the "Battle of Transportation"—is to be staged at the Cedar Hill yard at New Haven, Conn., and these railroaders will have an opportunity to "plug" for their industry, and perhaps to allude to Cedar Hill's recent record job of classifying 9,087 cars in 24 hours. "Vox Pop" programs are now devoted to demonstrations of the nation-wide scope of the war effort, and this broadcast will stress the railroads' much more than "ankle deep" contribution to victory.

South's Livestock Rates Readjusted

I. C. C. prescribes new set-up which will result in lower charges

A new rate structure and transit arrangements on livestock to and from the South have been prescribed by the Interstate Commerce Commission in a report in I. & S. No. 4779 which also embraces a number of complaint proceedings. Generally speaking the commission fixes rates lower than the present bases, conceding among other factors a validity to the South's bid for more livestock business so that it may utilize for pasturage the "millions of acres formerly used to produce cotton and tobacco, the demand for which has diminished."

The report by Commissioner Porter sets up mileage scales for application within the South and between the South and Official territory. The scales remove the Florida arbitraries and joint-line rates higher than single-line rates. Commissioner Splawn, in a separate concurring-in-part expression, estimated that the effect on rates within the South would be a reduction of approximately 10 per cent in the charges on fat livestock. He goes on to say, however, that the rail movement of fat livestock within the South is so small that this would seem to be a "paper adjustment," which would not affect the revenues of the carriers.

On traffic from the Western district to the South and through the South to Official territory the commission prescribes combinations of proportionals based on Mississippi river crossings. The combination prescribed embraces "the proportional rates prescribed for application in the Western district in our report in the *Western case,* as increased in the *Fifteen Percent Case, 1937-1938,* applied in the manner prescribed, without any additional charge for crossing the river, plus proportional rates from the East-bank Mississippi river crossings determined by deducting two cents from the rates herein found reasonable for application from the crossings, except that no rate shall be thus reduced below 16 cents."

Other findings change the basis of rates on stocker and feeder livestock moving within the South from 75 per cent to 90 per cent of the corresponding rates on livestock fit for slaughter; reduce the charges for bedding livestock in Southern territory; and order the railroads to establish certain transit arrangements sought by the complainants. With respect to the stocker-and-feeder adjustment, Commis-

(Continued on page 385)

Study Board Gets Transport Report

Highway Users' document finds that status quo aids the public welfare

"The amount and evils of competition between various American transportation systems has been greatly exaggerated and such competition as exists is for the public welfare," concludes a study on "Transportation in the Public Interest," submitted by the National Highway Users Conference to the Board of Investigation and Research created by the Transportation Act of 1940. A similar report was recently submitted to the Board by the Association of American Railroads, as noted in the *Railway Age* of August 8, page 240.

The Highway Users report was prepared by Grover C. Dillman, president of the Michigan College of Mining and Technology; H. E. Stocker, professor of transportation, New York University; and John S. Worley, professor of transportation engineering, University of Michigan, who constituted a three-man committee commissioned by the Conference in November, 1941.

The committee said that approximately 98 per cent of total ton-miles of railroad freight traffic consists of carload lots, much of which is not subject to motor vehicle competition and stated that between 50 per cent and 60 per cent of railroad traffic measured in ton-miles is non-competitive. These figures are used in support of the conclusion that each transportation agency has definite services that, under certain conditions, it is better fitted to perform than any other.

"The people are entitled to the best and cheapest transportation they can get, and they must decide what is best and what is cheapest, all things considered," the report declares in rejecting the theory that there are well-defined fields in which each type of transportation has continuous inherent advantages over all others. The committee asserted that it is not in the public interest for legislative bodies or administrators to attempt to establish inherent advantages and then confine each type of transportation to a fixed sphere of operations.

Claiming sufficient existing transportation facilities for ordinary commerce, the report takes issue with recent National Resources Planning Board pronouncements to the effect that the national transportation system is inadequate and needs reorganization. The committee decided it would be contrary to the public interest to "adopt new and untried schemes" of transportation.

"Highways, rural roads, streets and alleys are responsibilities of municipal, state and federal governments and are necessary and integral parts of the present land economy," the committee stated. In declaring that highways of all nations have been built primarily "to facilitate the conduct of business" (sic), it said, "From the very inception, the individual has had free use thereof to meet his transportation needs, whether they be the movement of merchandise for himself or family, or raw materials or finished products used by him in his business."

Commenting upon public aids to transportation, the report says, "It is very difficult to see where there have been any public aids to transportation through the construction, maintenance and improvement of our highways, since they are a necessary and integral part of our society." It adds, "A comprehensive study of public aids leads to the conclusion that public funds, federal, state or municipal, have as a rule been judiciously spent and in the public interest." The committee denies that highway transportation has been subsidized and presents information intended to disprove such charges. It declares that highway users pay more than their fair share of highway taxes and in support of this statement cites the "Public Aids to Transportation" study by Joseph B. Eastman, former federal co-ordinator of transportation and now director of defense transportation.

The report concludes that if equality of regulation of transportation is to be adopted as a standard, then all carriers must be regulated in the full public interest, but that identical regulatory measures must not be applied to each type of carrier regardless of the public interest.

Car Service Men Cancel Meeting

The annual convention of the Eastern Association of Car Service Officers, usually held in September, has been cancelled by decision of the officers and executive committee, in recognition of wartime conditions.

Employees of Lines in Mexico Seek Pay Increase

Employees of the Southern Pacific of Mexico, the Mexican Railway and the Pullman Company in Mexico have demanded a 10 per cent increase in wages. The matter is being considered by the Department of Labor of the Mexican government.

Canadian Pacific Converts More Passenger Equipment

Latest reports from the Canadian Pacific Angus Shops indicate that 56 of the road's passenger cars have been or are now being put through a reconditioning program to make their interior arrangements more serviceable under wartime traffic requirements. Fifteen cars designed for long distance "through baggage" service are scheduled for early conversion to regular baggage cars.

The rearrangement of some 20 cars of the solarium lounge and compartment sleeper types, formerly used on through trains, principally in the summer vacation season, was described briefly in *Railway Age* of May 30, page 1098. Among other cars now going through the shops are six standard coaches, which are being changed to combination baggage and smoking cars for branch line service. One colonist car has been reconstructed to become a military hospital car. Ten observation sleepers of the "Mount" class have been withdrawn from "luxury" service; the interior fittings of these cars have been stripped out completely, and standard coach seats for 84 passengers are now being installed.

B. & M. Gets Some Truck Certificates

I.C.C. reverses Division 5 as to most routes operated by contractors

Reversing findings of Division 5's prior report, the Interstate Commerce Commission in a report on reargument has granted the Boston & Maine Transportation Company, affiliate of the Boston & Maine, certificates under the Motor Carrier Act's "grandfather" clause, covering the bulk of its common-carrier trucking services which on the "grandfather" date were being conducted under contractual arrangements with independent vehicle operators. Division 5, as noted in the *Railway Age* of November 1, 1941, page 722, had held that the operations contracted for did not suffice to establish "grandfather" rights for either the Transportation Company or the B. & M.

The full commission now holds that the Transportation Company is entitled to certificates covering operations on some 21 routes and various alternate routes between points in Massachusetts, New Hampshire, Vermont, and Maine, which were formerly conducted by the Transportation Company's principal contract trucker—Big Three, Inc. Big Three was the only one of the 15 contract truckers with which the Transportation Company had a written contract. While oral arrangements with the contractor second in importance—N. F. Smith & Company, operator of nine routes—have been described as similar to the written contract with Big Three, the commission did not pass upon the Transportation Company's request for certificates on the routes operated by Smith. It found that the record on that relationship was not in harmony with that in the proceeding wherein Smith sought a certificate. Accordingly the matter was reopened for further hearing. With respect to the routes operated by the other contractors, the commission affirmed Division 5's finding that the "grandfather" rights should go to the truck operators. According to the commission, these "appear to have conducted operations in their own right," with the Transportation Company taking no interest "other than to require adequate and satisfactory service."

In reversing the findings of the prior report as to the Big Three routes, the commission took a broader view than did Division 5 of that Dixie Ohio case doctrine to the effect that where an applicant claims common-carrier status and does not own vehicles, the "controlling question" is not whether the vehicles were leased, "but rather whether the vehicles of the other carrier were operated under applicant's direction and control and under its responsibility to the general public as well as the shipper." The Dixie Ohio decision was by Division 5, but the commission conceded that it has indirectly approved its rule. It added, however, that "direction," "control," and "responsibility" are "conclusions dependent upon the facts

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Report on Accident at Kittrell, N. C.

Disobedience of rules given as cause of collision involving "Meteor"

The rear-end collision on the Seaboard Air Line at Kittrell, N. C., on June 14, in which eight passengers were killed and eight passengers and one employee were injured, was the result of laxity on the part of employees in carrying out operating rules, according to the official report of the investigation conducted for the Interstate Commerce Commission by Commissioner Patterson. Final responsibility for the conditions disclosed, however, was attributed to "lack of proper supervision in the enforcement of the rules."

A brief account of the accident appeared in *Railway Age* of June 20, page 1220. The passenger train involved, the southbound "Silver Meteor," was made up of four standard Pullman sleepers, a standard all-steel diner, and 11 streamlined cars of stainless steel construction, drawn by a three-unit Diesel-electric locomotive. As this train passed Kittrell shortly after midnight a lantern signal given by the operator at that point was interpreted as a stop signal by the engineman, who stopped the train by an emergency brake application.

After this occurred, according to the testimony given by employees, as summarized in the report, the flagman had gone some 350 feet to the rear of the train when he was recalled by a signal from the locomotive, which the engineman sounded as soon as the gage showed sufficient pressure had been built up in the train air-brake system for it to function. The flagman then placed a lighted fusee on the track and returned to the train, but it did not move after he had given a proceed signal from the rear car. The engineman stated that this delay resulted from failure of the brakes to release after he had received the flagman's signal. The flagman again went to the rear, but had gone only a short distance when a southbound freight train of 23 cars and caboose, drawn by a 2-8-2 steam locomotive, passed him and collided with the rear of the passenger train while moving at an estimated speed of five to ten miles an hour.

All of the passengers killed were in the stainless steel coach-observation car at the end of the train, which was the only car to suffer serious damage. The rear portion of this car was crushed a distance of 23 feet, and the derailed rear truck was driven forward under the car. "The collision members, buffer beam, floor structure and other members forming the structural strength of the rear end of the rear car were driven forward. The center-sill was demolished to a point about eight feet ahead of the normal location of the body bolster. The body bolster was torn from its attachments to the side sills and the center-sill, and was driven forward a distance of 11 feet 6 inches. The draft attachments were torn from the car and the coupler shank was bent. The underframe, floor structure and side framing immediately beyond the demolished portion were intact." The front end of the steam locomotive was badly damaged, but it was not derailed.

Tests made after the accident indicated that the brake equipment of the freight train functioned properly. Employees on that train agreed that a block signal 7,444 feet north of the point of the accident displayed the approach aspect, and tests indicated that the train would have come to a stop short of the next signal, showing a stop aspect, which was 90 ft. north of the standing passenger train if its speed had been reduced to the extent required by the road's rules. The report also remarks that the flagman of the passenger train should not have been recalled until it was determined that his train was actually ready to proceed.

State Commissioners Will Meet in St. Louis November 10-12

The annual convention of the National Association of Railroad and Utilities Commissioners will be held at the Hotel Coronado, St. Louis, Mo., on November 10, 11 and 12. Topics for discussion will include transportation problems under the war program; integration of state commissions with the program of the Office of Defense Transportation; and uniformity of reciprocal relations in connection with relaxation of state motor vehicle laws.

U. S. Requisitions Santa Fe's Boise City-Farley Line

The U. S. government has requisitioned for war purposes all rails, ties, track fastenings, metal bridges and other materials of the 95-mile line of the Atchison, Topeka & Santa Fe, extending from Boise City, Okla., to Farley, N. M. Application to abandon the line had been filed previously with the Interstate Commerce Commission.

A.S.M.E. Railroad Division Elects New Officers

In accordance with usual procedure, the annual meeting of the American Society of Mechanical Engineers, Railroad Division, scheduled to be held at New York, on December 3, will be presided over by the present chairman, D. S. Ellis, chief mechanical officer, Chesapeake & Ohio. The position of chairman for the ensuing year will be filled by J. R. Jackson, engineer of tests, Missouri Pacific, and at an all-committee meeting, held on June 9 in Cleveland, Ohio, W. C. Sanders, general manager, Railroad Division, Timken Roller Bearing Company, was elected incoming new member of the five-man Executive committee.

By poll of the Executive, General and Advisory committees of the Railroad Division, the following three men have recently been elected incoming members of the General committee, each for a term of five years: J. M. Nicholson, mechanical assistant to vice-president, Atchison, Topeka & Santa Fe, Chicago; P. W. Kiefer, chief engineer motive power and rolling stock, New York Central, New York; and E. D. Campbell, general mechanical engineer, American Car and Foundry Company.

7 Mo. Net Income Was $376 Million

Net railway operating income for the same period was $681,512,258

Class I railroads in the first seven months of this year had an estimated net income, after interest and rentals, of $376,500,000, as compared with $233,521,909 in the corresponding period last year, according to the Bureau of Railway Economics of the Association of American Railroads. The seven-months net railway operating income, before interest and rentals, was $681,512,258, compared with $540,203,909 in the same 1941 period.

In the 12 months ended July 31, 1942, the rate of return averaged 4.33 per cent as compared with 3.49 per cent for the 12 months ended July 31, 1941.

July's estimated net income was $89,900,000, compared with $63,528,176 in July, 1941; while the net railway operating income for that month was $133,001,365, compared with $106,381,904 in July, 1941.

Total operating revenues in the seven months amounted to $3,945,940,567, compared with $2,909,870,122 in the same period in 1941, an increase of 35.6 per cent. Operating expenses amounted to $2,547,739,387, compared with $1,988,383,842, an increase of 28.1 per cent.

Class I roads in the seven months paid $617,295,042 in taxes, compared with $304,471,406 in the same period in 1941. For July alone, the tax bill amounted to $125,838,406, an increase of $68,643,241 or 120 per cent above July, 1941. Eighteen Class I roads failed to earn interest and rentals in the seven months, of which seven were in the Eastern district, one in the Southern district and 10 in the Western district.

Gross for July totaled $665,181,540 compared with $485,446,306 in July, 1941, while operating expenses totaled $390,476,945 compared with $310,034,946.

Class I roads in the Eastern district in the seven months had an estimated net income of $162,600,000 compared with $143,456,782 in the same period last year. Those same roads had seven-months net railway operating income of $284,034,932, compared with $273,325,908 in 1941.

Operating revenues in the Eastern district in the seven months totaled $1,878,473,919, an increase of 29 per cent compared with the same period in 1941, while operating expenses totaled $1,239,435,950, an increase of 26.3 per cent.

The Eastern district's July net income was $36,900,000 compared with $29,054,813 in July, 1941. Net railway operating income amounted to $54,173,469 compared with $47,395,415 in July, 1941.

Class I roads in the Southern district in the seven months had an estimated net income of $70,300,000 compared with $41,966,784 in the same period last year. Their seven-months net railway operating income was $107,328,861 compared with $79,105,378 in the same period of 1941.

The seven-months gross in the Southern district totaled $556,501,865, an increase of 44 per cent compared with the same period

in 1941, while operating expenses totaled $342,201,428, an increase of 31.6 per cent.

For July the Southern district's estimated net income was $12,400,000 compared with $7,992,269 in July, 1941. Net railway operating income amounted to $16,262,199 compared with $11,745,515 in July, 1941.

Class I roads in the Western district in the seven months had an estimated net income of $143,600,000 compared with $48,098,343 in the same period last year. Those same roads had a seven-months net railway operating income of $290,148,465 compared with $187,772,623 in the same period in 1941.

Operating revenues in the Western district in the seven months totaled $1,510,964,783, an increase of 41.5 per cent compared with the same period in 1941, while operating expenses totaled $966,102,009, an increase of 29.4 per cent above 1941.

Roads in the Western district for July alone had an estimated net income of $40,600,000 compared with $26,481,094 in July, 1941. Net railway operating income amounted to $62,565,697 compared with $47,240,974 in July, 1941.

CLASS I RAILROADS—UNITED STATES

	1942	1941
Month of July		
Total operating revenues	$665,181,540	$485,446,306
Total operating expenses	390,476,945	310,034,946
Operating ratio —per cent	58.70	63.87
Taxes	125,838,406	57,195,165
Net railway operating income (Earnings before charges)	133,001,365	106,381,904
Net income, after charges (estimated)	89,900,000	63,528,176
Seven Months Ended July 31		
Total operating revenues	$3,945,940,567	$2,909,870,122
Total operating expenses	2,547,739,387	1,988,383,842
Operating ratio —per cent	64.57	68.33
Taxes	617,295,042	304,471,406
Net railway operating income (Earnings before charges)	681,512,258	540,203,909
Net income, after charges (estimated)	376,500,000	233,521,909

Ohio Valley Board to Meet at Indianapolis

The Ohio Valley Transportation Advisory Board will hold its sixty-sixth regular meeting at Indianapolis, Ind., on September 10. At a luncheon meeting, G. H. Shafer, vice-president of the National Association of Shippers Advisory Boards, will be the principal speaker.

Locomotive Fuel Prices Upped

Increases in the minimum prices of locomotive fuel ranging from five to 40 cents per ton have been ordered by Dan H. Wheeler, acting director of the Bituminous Coal Division of the United States Department of the Interior. Designed to reflect newly established costs, the revised minimum prices have been ordered to become effective at 12:01 a.m., October 1.

The order adopts with modifications a report and recommendations filed July 27 by Examiner Floyd McGown. The proposed increases in the 10 areas of the country were set out in detail in the *Railway Age* of August 8, page 236, and the present order adopts all of the proposed increases with the single exception of Minimum Price Area 4 (Arkansas and eastern Oklahoma). In this area the examiner proposed an increase in the minimum price of locomotive fuel of 60 cents per ton, but the order reduces this figure to 40 cents per ton.

The order provides that parties may request Secretary of the Interior Ickes to review the Acting Director's determinations on specified questions of law and policy of general application, and may present briefs on such questions. The order requires that such requests for review and accompanying briefs must be filed by September 10.

More Roads Get Delay on Power Reverse Gears

Several additional railroads have obtained from the Interstate Commerce Commission an extension from September 1 until October 1 of the time within which the rule requiring the installation of power reverse gears on locomotives must be complied with. They include the Lehigh Valley, Texas & New Orleans, Delaware & Hudson, and Kansas City Southern.

As noted in the *Railway Age* of August 29, page 354, the commission has called a conference at Chicago on September 10 for the purpose of discussing "the necessity, if any, for a further postponement."

Representation of Employees

Results of recent elections in representation-of-employees disputes have been made public by the National Mediation Board. On the Delaware, Lackawanna & Western, the Board closed without certification a proceeding involving a contest for the right to represent yardmasters. Contestants included the Order of Railway Conductors, the Brotherhood of Railroad Trainmen, the Railroad Yardmasters of North America, and the Associated Yardmasters of the Delaware, Lackawanna & Western Railroad Company, none of which received a majority of the legal votes cast. The employees involved have been represented by the last-named organization.

On the Cleveland Union Terminals, the Board certified the Brotherhood of Railroad Trainmen as the representative of yardmen (foremen, helpers and switchtenders); while the switchtenders of the Salt Lake Union Depot chose the Switchmen's Union of North America. On the Denver & Rio Grande Western, the B. of R. T. retained the right to represent the yardmasters, although it lost the yardmen (foremen, helpers and switchtenders) to the Switchmen's Union. On the Bingham & Garfield, the Brotherhood of Locomotive Firemen & Enginemen took the engineers away from the Brotherhood of Locomotive Engineers.

New Corporation to Facilitate Lease-Lend Shipping

The Seattle Foreign Freight Forwarders Corporation has been organized by a group of Seattle, Wash., companies to facilitate the shipping of all lease-lend cargoes routed through Puget Sound ports. Officers of the corporation are: President, J. A. Smith, president of the International Pacific Coast Corporation; first vice-president, John P. Hausman; second vice-president, B. Roy Anderson; secretary, Percy S. Laing; and treasurer, C. R. Paddock.

July Earnings in Canada

In July the Canadian National earned $7,732,147 operating net, an increase of $2,815,835 over last year. Gross was $33,133,000 (up $7,477,558) and expenses were $25,400,853 (up $4,661,723). For the seven months, gross was $202,548,000 (up $35,177,070); expenses were $156,796,983 (up $26,450,575); and operating net was $45,751,017 (up $8,726,495).

On the Canadian Pacific July operating net was $3,268,451 (a $73,031 increase). July gross was $21,926,008 (a $2,566,554 increase); and expenses were $18,657,557 (increase $2,493,523). For the seven months, C. P. R. gross was $142,959,100 (a $23,759,260 increase); its expenses were $117,742,566 (increase $21,657,840); and operating net was $25,216,534 (a $2,101,420 rise).

B. & O. Operates First Diesel Freight Locomotive in East

The first Diesel-electric freight locomotive to be operated on an Eastern railroad was placed in service by the Baltimore & Ohio at Chicago on August 31. The 5,400 hp. locomotive was delivered by the Electro-Motive Division of General Mo-

B. & O.'s New Number One Goes Into Regular Freight Service

Starting east from Chicago August 31 with a train of oil tank cars, this 5,400 h. p. Electro-Motive product is the first of its kind in regular operation on an eastern railroad.

tors Corporation a week previously and had been tested on the Chicago-Akron division. It left the Barr yards at Chicago on August 31, with a train of 76 loaded oil cars and a dynamometer car for a non-stop run to Baltimore, Md., a distance of 805 miles.

Hearings on Short Line Wages are Concluded

Hearings on the dispute involving wages and vacations for non-operating employees of 27 short line railroads, which were begun before a three-man emergency board at Chicago on August 10, were concluded on August 27. On August 31, the board reconvened to sit as a mediation board in a number of the disputes. The time limit for the board's report has been extended from 30 days to 60 days from July 21.

A.A.R. Mechanical Division Committee Changes

The A. A. R., Mechanical Division, has announced the changes in the personnel of its committees as they have been effected to serve the division until June, 1943. There are no changes in the officers of the division, who are W. H. Flynn (chairman), general superintendent motive power and rolling stock, New York Central; R. G. Henley (vice-chairman), general superintendent motive power, Norfolk & Western; V. R. Hawthorne, executive vice-chairman; A. C. Browning, secretary, and W. I. Cantley, mechanical engineer. The following are the new members on each of the committees:

General Committee

H. W. Jones, chief motive power, Pennsylvania, Philadelphia, Pa. (succeeding F. W. Hankins, assistant vice-president, operations, Pennsylvania System, Philadelphia, Pa.)

J. M. Nicholson, assistant to vice-president, A. T. & S. F., Chicago (succeeding J. Purcell, assistant to the operating vice-president, A. T. & S. F.—retired.)

P. O. Christy, general superintendent equipment, Illinois Central, Chicago (succeeding G. C. Christy, general superintendent of equipment, Illinois Central—retired.)

H. P. Allstrand, chief mechanical officer, C. & N. W., Chicago (succeeding E. B. Hall, chief mechanical officer both of the C. & N. W. and the C. St. P. M. & O.—retired.)

B. M. Brown, general superintendent motive power, Southern Pacific, San Francisco, Calif. (succeeding George McCormick, general superintendent motive power, Southern Pacific—retired.)

A. K. Galloway, general superintendent motive power and equipment, B. & O., Baltimore, Md.

Nominating Committee

J. M. Nicholson, assistant to vice-president, A. T. & S. F., Chicago (succeeding J. Purcell).

H. P. Allstrand, chief mechanical officer, C. & N. W., Chicago, (succeeding E. B. Hall).

H. W. Jones, chief motive power, Pennsylvania, Philadelphia, Pa., (succeeding F. W. Hankins).

Arbitration Committee

W. N. Messimer, assistant superintendent of equipment, New York Central, New York (succeeding W. H. Flynn.)

E. L. Bachman, general superintendent motive power, Pennsylvania, New York (succeeding W. R. Elsey, assistant to the vice president in charge of real estate, purchases and insurance, Pennsylvania, Philadelphia, Pa.)

Sub-Arbitration Committee

C. J. Hayes, supervisor of A. A. R. Billing Bureau, New York Central, Buffalo, N. Y. (succeeding W. N. Messimer.)

Prices for Labor and Materials

No changes.

Car Construction

R. B. Winship, mechanical engineer, Canadian Pacific, Montreal, Que. (succeeding W. A. Newman, chief mechanical engineer, Canadian Pacific, Montreal, Que.)

Brakes and Brake Equipment

F. T. McClure, supervisor air brakes, A. T. & S. F., Topeka, Kan. (succeeding J. A. Burke, supervisor air brakes, A. T. & S. F.—deceased—who has been succeeded as vice-chairman by J. P. Lantelme, general foreman, Pennsylvania, Philadelphia, Pa.)

A. J. Pichetto, general air brake engineer, Illinois Central, Chicago.

Couplers and Draft Gears

F. T. James, chief motive power, D. L. & W., Scranton, Pa. (succeeding E. E. Root, chief motive power, D. L. & W., who is now on a leave of absence.)

Loading Rules

G. D. Minter, division car inspector, N. & W., Portsmouth, Ohio (succeeding R. H. Dyer, general car inspector, N. & W., Roanoke, Va.)

Locomotive Construction

L. P. Michael, chief mechanical engineer, C. & N. W., Chicago (succeeding H. P. Allstrand, who has been succeeded as vice-chairman by E. L. Bachman, general superintendent motive power, Pennsylvania, New York.)

Safety Appliances

H. W. Jones, chief motive power, Pennsylvania, Philadelphia, Pa. (succeeding F. W. Hankins.)

J. M. Nicholson, assistant to vice-president, A. T. & S. F., Chicago (succeeding J. Purcell.)

Specifications for Materials

No changes.

Tank Cars

L. R. Schuster, engineer car construction, Southern Pacific, San Francisco, Calif. (succeeding, B. M. Brown, general superintendent motive power, Southern Pacific.)

D. S. Clark, administrative assistant, School of Mechanical Engineering, Purdue University, Lafayette, Ind. (succeeding G. A. Young, School of Mechanical Engineering, Purdue University.)

G. W. Thomas, master car builder, Deep Rock Oil Corp., Cushing, Okla. (succeeding W. C. Steffa, transportation manager, Sinclair Refining Company, New York.)

Wheels

F. Holsinger, wheel shop foreman, Markham shop, Illinois Central, Hazelcrest, Ill.

Lubrication of Cars and Locomotives

No changes.

Further Development of Reciprocating Steam Locomotive

A. J. Townsend, mechanical engineer, Lima Locomotive Works, Inc., Lima, Ohio (succeeding W. E. Woodard, vice-president, Lima Locomotive Works—deceased.)

R. P. Johnson, chief engineer, Locomotive Division, Baldwin Locomotive Works, Philadelphia, Pa. (succeeding W. H. Winterrowd, vice-president, Baldwin Locomotive Works—deceased.)

J. E. Davenport, vice-president, engineering, American Locomotive Company, New York (succeeding J. B. Ennis, senior vice-president, American Locomotive Company.)

Joint Committee on Utilization of Locomotives

No changes.

Journal Bearing Development (New Committee)

W. I. Cantley (chairman), mechanical engineer, Association of American Railroads, Chicago.

J. R. Jackson, engineer of tests, Missouri Pacific, St. Louis, Mo.

J. W. Hergenhan, assistant engineer, test department, New York Central, New York.

J. Mattise, general air brake instructor, C. & N. W., Chicago.

L. B. Jones, engineer of tests, Pennsylvania, Altoona, Pa.

C. B. Bryant, engineer of tests, Southern, Alexandria, Va.

Committee on Geared Handbrakes (New Committee)

R. G. Henley (chairman), general superintendent motive power, N. & W., Roanoke, Va.

E. P. Moses, engineer rolling stock, New York Central, New York.

J. P. Lantelme, general foreman, Pennsylvania, Philadelphia, Pa.

W. I. Cantley, mechanical engineer, Association of American Railroads, Chicago.

Senate Committee Kills Tax on Freight Shipments

The Senate finance committee, which is currently considering the 1942 tax bill, H. R. 7378, has agreed to eliminate the provisions contained in the House measure imposing a five per cent tax on freight other than coal and a five cent per ton tax on coal, and has voted certain tax relief sought by the railroads through the Association of American Railroads.

One provision would permit the railroads to purchase their own outstanding securities without being forced to pay an excess profits tax on the difference between the market price and the par value of the securities. The present law provides that carriers, in order to purchase their securties without incurring a tax liability, must obtain a certificate from an appropriate government agency declaring them in unsound financial condition. Under the Senate committee's plan the existing act would be amended so as to eliminate this requirement. The present law expires on December 31, 1942, but the House measure would extend it for three years.

The committee also adopted a proposal designed to afford tax relief in connection with railroad reorganizations. This proposal provides that if a railroad is reorganized, the new company shall take the same basis of the assets which the old company had, not only for excess profits taxes, but for depreciation or gain or loss.

South's Livestock Rates Readjusted

(Continued from page 381)

sioner Splawn stated that "the preponderant movement by rail within the South is of stockers and feeders," adding that "the going rates are here substantially increased on this traffic."

Meanwhile, Commissioner Miller, dissenting in part, and Commissioner Patterson, dissenting, called for an abandonment of the differential between rates on stockers and feeders and those on fat cattle. Commissioner Miller pointed out that stocker and feeder rates are intended to apply as proportionals, in that they contemplate that the railroads will get a further haul on the fat cattle from the stocker and feeder points to the markets. He went on to say that this has not worked out, especially since the advent of trucking. Also he cited the single basis of rates which applies to all classes of livestock in Official territory, continuing to suggest that "apparently the time has arrived when we should institute an investigation for the purpose of determining whether a single scale" should be prescribed in the South and West.

Actually the majority report had given a nod to that idea when it summarized its views on the stocker and feeder rates. "While the present record," it said, "is strongly persuasive that a single basis of rates on fat stock, stockers, and feeders at a level intermediate between the two levels applicable on these animals is desirable and would avoid friction between shippers and carriers relating to the abuse of the stocker and feeder rates which has been continually brought to our attention for the past 40 years, the present record is not broad enough to determine that question. It should be stated that the instant record does not disclose any appreciable abuse of the stocker or feeder rates in Southern territory."

In addition to its call for the single basis of rates, Commissioner Patterson's dissent

also expressed the view that all interterritorial livestock rates should be constructed in the same manner. It appears to him that the majority decision will make rates from the South to Official territory less, mile for mile, than those between the West and Official territory.

Commissioner Mahaffie, dissenting in part, conceded that the majority report "improves the rate structure with which it deals." His "difficulty" arises from his thought that the livestock shipper "should pay a fair share of the cost of producing the transportation he uses," whereas "on the basis of the rates and charges prescribed in this report, I am unable to agree that he will do so." In this connection the majority had referred to evidence of record indicating that "there are comparatively few commodities on which the carriers earn less per car than on livestock." It went on, however, to recall previous commission pronouncements to the effect that "livestock is a commodity which from its nature cannot be expected to do more than 'pay its own way'; that is, it can not sustain a rate level which will produce more than the cost of rendering the service plus a minimum profit."

B. & M. Gets Some Truck Certificates

(Continued from page 382)

presented in each idividual case;" and "the question cannot be decided by the existence of any single factor such as the name used on the bill of lading or displayed on the vehicle, the methods of payment for the service performed, or the terms of the agreement between the parties."

With respect to the Big Three-Transportation Company arrangement, the commission found evidence that direction and control of the operations were maintained by the latter; also, it was "clear" that the Transportation Company assumed "full responsibility" to the shipper. Thus, as the report put it, the question boils down to whether Big Three's vehicles were operated under the Transportation Company's obligation "to the general public." In that connection the commission went on to cite court decisions indicating that operators in the Transportation Company's position had been held liable for acts of their contract truckers; and also it found in the Big Three-Transportation Company contract provisions indicating that the latter was "apprehensive that it might be held to such responsibility."

"Considering all the facts presented here," the commission said, "we conclude that with respect to traffic moving on billing of the Transportation Company, the operations of Big Three under its contracts were in law the operations of the Transportation Company and that the latter, as to such traffic, was on June 1, 1935, a 'common carrier by motor vehicle' under the terms of the original and also the amended definition of section 203(a)(14) of the act." Likewise was the Transportation Company found to be a common carrier by motor vehicle with respect to B. & M. line-haul freight which it handled for the railroad through arrangements with Big Three.

Commissioner Lee, dissenting-in-part, asserted that the facts stated in Division 5's report had not been disputed, adding that all findings in the prior report "are sound and should be affirmed." The dissent of Commissioner Rogers was noted, while Commissioner Splawn did not participate.

Commissioners Lee and Rogers comprised Division 5's majority that adopted the prior report. Had that prevailed, it would have meant that the B. & M. and its affiliate, which had been offering highway freight services for some 10 years before the grandfather-clause dates, would have been precluded from continuing such services unless they filed "new operation" applications and made a showing of public convenience and necessity in the face of the present set-up of truck transportation on the routes involved. The third member of Division 5 at the time was Commissioner Eastman whose dissent asserted that the majority's conclusions would "produce results inconsistent with the practical actualities of the situation, and with fair dealing."

Equipment Depreciation Orders

Equipment depreciation rates for the Great Northern and the Arkansas Harbor Terminal have been prescribed by the Interstate Commerce Commission in recently-issued sub-orders in the depreciation-rates proceeding. Rates prescribed for the G. N. are as follows: Steam locomotives, 3.01 per cent; electric locomotives, 2.78 per cent; Diesel locomotives, 5.21 per cent; freight-train cars, 3.22 per cent; passenger-train cars, 2.93 per cent; work equipment, 3.09 per cent; miscellaneous equipment, 15.61 per cent.

Freight Car Loading

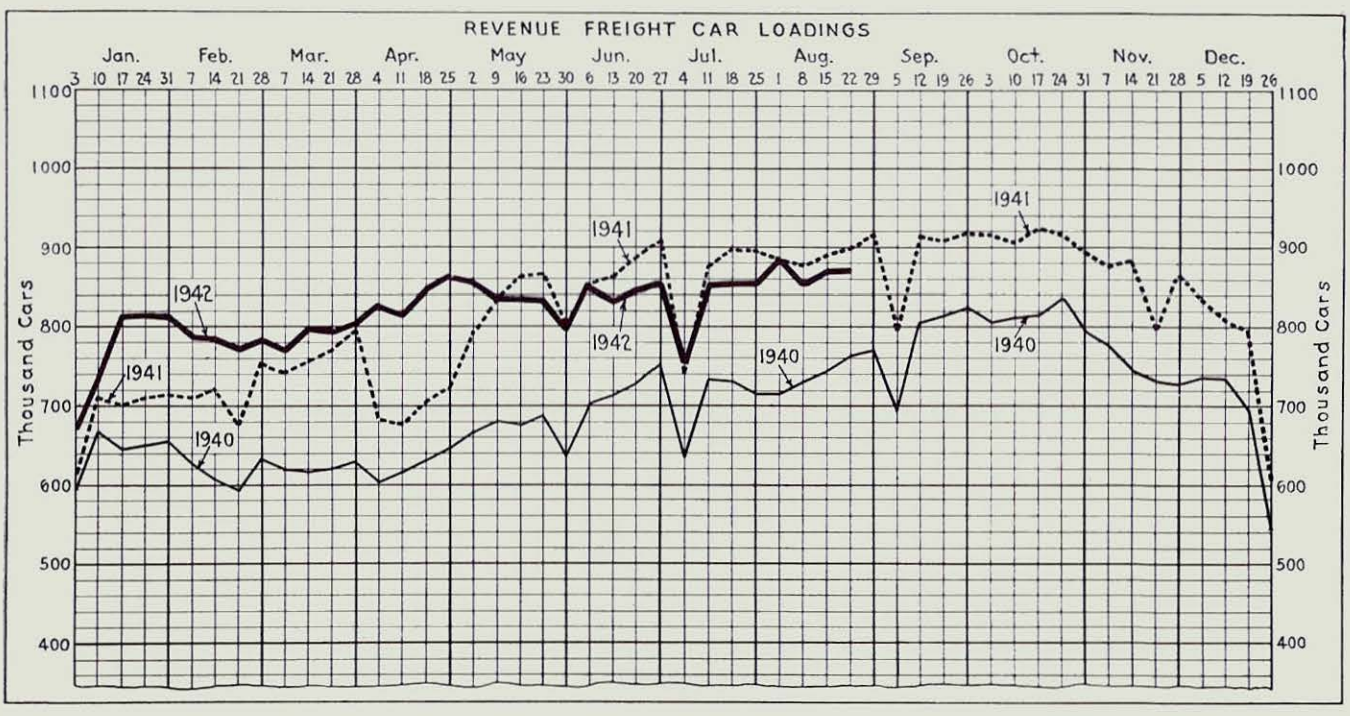
Loadings of revenue freight for the week ended August 29 totaled 899,419 cars, the Association of American Railroads announced on September 3. This was an increase of 30,015 cars, or 3.5 per cent, above the preceding week, a decrease of 13,301 cars, or 1.5 per cent, below the corresponding week last year, and an increase of 130,644 cars, or 17 per cent, above the comparable 1940 week.

As reported in last week's issue, loadings of revenue freight for the week ended August 22 totaled 869,404 cars, and the summary for that week, compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For Week Ended Saturday, August 22

District	1942	1941	1940
Eastern	160,187	181,618	151,319
Allegheny	185,395	198,096	161,683
Pocahontas	53,852	59,091	51,942
Southern	117,031	120,262	101,177
Northwestern	151,703	152,151	138,048



Central Western	131,001	129,310	109,040
Southwestern ..	70,235	59,260	47,899
Total Western Roads	352,939	340,721	294,987
Total All Roads	869,404	899,788	761,108
Commodities			
Grain and grain products	49,672	43,625	44,310
Livestock	14,731	12,014	13,511
Coal	160,711	169,691	134,892
Coke	14,003	12,941	10,634
Forest Products	52,030	50,469	38,038
Ore	85,997	77,019	69,986
Merchandise l.c.l.	89,547	157,102	151,190
Miscellaneous .	402,713	376,927	298,547
August 22	869,404	899,788	761,108
August 15	868,845	890,337	743,050
August 8	849,752	878,505	727,073
August 1	863,528	882,022	717,927
July 25	855,522	897,564	718,038
Cumulative Total, 34 Weeks ..	27,833,102	26,814,819	22,686,143

In Canada.—Carloadings for the week ended August 22 totaled 65,656 as compared with 64,245 in the previous week and 65,654 a year ago, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Aug. 22, 1942	65,656	36,725
Aug. 15, 1942	64,245	35,259
Aug. 8, 1942	63,680	35,116
Aug. 23, 1941	65,654	29,844
Cumulative Totals for Canada:		
Aug. 22, 1942	2,157,712	1,126,924
Aug. 23, 1941	1,993,424	993,716
Aug. 24, 1940	1,742,957	822,618

Army Camp Named After Santa Fe Solicitor

The memory of Captain William C. Reid, a former solicitor of the Atchison, Topeka & Santa Fe for New Mexico and one of the outstanding leaders in affairs of that state for nearly a half century, was honored by the War Department on August 8, when it named the base of the seven hundred thirteenth railway engineer battalion at Clovis, N. M., Camp William C. Reid.

Capt. Reid was commissioned a captain in Company F, First Territorial United States Infantry, during the Spanish-American War. He was born at Etna Green, Ind., in 1868. He attended Purdue University, and journeyed to New Mexico in 1895 to become manager of the Las Vegas Optic. He was admitted to the bar, practicing until the outbreak of war. Returning to New Mexico upon conclusion of the conflict he served as assistant federal district attorney and later as attorney general of the state in 1906-1907.

He became attorney for the Santa Fe at Roswell in 1915, and subsequently made headquarters in Albuquerque as solicitor for the Railway, and formed a partnership with Earl C. Iden.

He was accredited with being one of the leaders in the development of mineral and water resources of New Mexico, as well as having had an important role in drafting the state constitution.

I. C. C. Service Orders

The Interstate Commerce Commission on August 27 issued Service Order No. 83-A, vacating and setting aside Service Order No. 83 which had been issued August 21 to direct railroads to route traffic around the strike-bound Meridian & Bigbee River.

Also, on August 27 the commission issued Service Order No. 84, directing railroads to reroute traffic which flood conditions prevented the Coudersport & Port Allegany from accepting at Port Allegany, Pa., its interchange point with the Pennsylvania.

Equipment and Supplies

New Programs Said to Call for 900 Loco's, 80,000 Cars

A proposed program calling for the construction of 80,000 additional freight cars and 900 locomotives needed to handle the increased volume of traffic anticipated next year is reported to be in the hands of the War Production Board. The program is reportedly based on estimates that ton-miles in 1943 will increase 15 per cent over 1942 and that active cars will increase with a rise in ton-miles in the ratio of 1 to 3. To effect a net increase of 80,000 cars, the program should include an additional number to compensate for cars to be retired during the period, but, recognizing the critical materials situation, it is reported to have been held to 80,000.

Of these, 3,500 will be box cars and 76,500 open-top cars. These latter include 10,000 flat cars, 2,000 covered hopper cars, 25,000 hopper cars, 35,000 gondola cars and 4,500 ore cars.

This new equipment-building program for the railroads is reported to cover the year October, 1942-43, although, at the current lagging rate of operation in the car building industry, it is doubtful that the 1942 program will be completed by October 1. If the views of some railroad officers prevail, who believe that employment in the car building industry should be made continuous, and production schedules placed on a monthly basis, the new program will get under way as quickly as possible. The industry is known to be gravely concerned over the dispersal of its workers. The Association of American Railroads was first reported to have submitted to the Office of Defense Transportation traffic estimates indicating that the next car building program should contemplate the construction of 80,000 cars in the *Railway Age* of July 25.

SIGNALING

The Birmingham Terminal Company has placed an order with the General Railway Signal Company covering materials for an NX (entrance-exit) electric interlocking system for the control of the terminal at Birmingham, Ala. The order calls for a control machine with four panel sections equipped with 50 entrance knobs, 50 exit buttons, 38 test keys, and 5 miscellaneous pushbuttons and levers, for the control of 11 crossovers, 2 double-slip switches, 1 single-slip switch, 23 single switches, 2 derails, and 54 operative signal arms. The panel will display routes lined up and tracks occupied, by means of white and red points of light in the white lines representing the track layout. Besides the control machine, the order includes 55 Model-5C switch machines, 54 Type-MD color-light dwarf signals, instrument cases and housings, and pre-wired relay racks for Type-B quick-detachable plug-in relays.

The Chicago, Burlington & Quincy has placed orders with the Union Switch & Signal Co. covering materials for the installation of an electro-pneumatic car retarder system in its westbound classification yard at Galesburg, Ill. This yard will consist of 35 tracks with provision for the future addition of 14 tracks. The materials include 17 electro-pneumatic Model-31 retarder units, 36 direct-acting switch layouts, 2 Style A-1 switch and lock movements, 2 control machines, searchlight type hump signals with necessary relays, resistors, relay cases, etc., for detector track circuits for the switches, and miscellaneous rectifiers, transformers, etc. The field construction work will be carried out by the regular installation forces of the Burlington.

To further expedite operations in the handling of freight classification at Galesburg, the C. B. & Q. has also placed an order with the Union Switch & Signal Co. covering materials for a Union yard communication system which will be installed in the westbound yard and also in the eastbound yard which is already retarder-equipped. The communication system will make it possible for the office in each yard to communicate directly with the enginemen in the locomotives operating in the assigned areas. Different frequencies will be used in each yard and the receiving equipments on nine locomotives will be arranged to receive information and orders selectively on either of two frequencies. The communication system will be effective throughout the receiving yards, over the hump area and into the classification yards to a point beyond clearance of the last classification switches.

Rails Make Army Cot Frames—Rails salvaged from the abandoned Crum Creek branch of the Baltimore & Ohio at Eddystone, Pa., just south of Philadelphia, have yielded 138 tons of steel which will be converted into frames for army cots. Part of the right-of-way of this branch is said to be the third oldest "rail way" in the United States. Like the two older lines, both in the vicinity of Boston, this pioneer track at first had wooden rails. It was built in 1809 by Thomas Leiper to transport stone from his quarry to a nearby creek, where it was loaded on barges to be floated to Delaware river points. The B. & O. took over the line in 1887, but the 1.9 mi. section just torn up has been unused in recent years, since the quarry products have been hauled by truck. A charter clause requires that railroad service must be available to the quarry whenever demanded by its owners, but they have agreed to waive this provision, at least "for the duration," to make the idle steel available for more urgent needs.

Supply Trade

Handy & Harman were presented with the Army-Navy "E" award for high achievement in producing war equipment on August 15 during ceremonies held around the flag pole on the plant grounds at Fairfield, Conn.

Tubular Products, Inc., a subsidiary of the United States Steel Corporation, has changed its name to **Tubular Alloy Steel Corporation** to "more truly reflect the emphasis which will be given to the production of tubular alloy steel products."

The Army-Navy award for high achievement in the production of machine tool equipment was presented to the **Jones & Lamson Machine Co.** and to the **Vermont Foundries, Inc.**, of Springfield, Vt., at a joint ceremony at Springfield on August 24.

W. W. Castleberry, formerly service supervisor at the Miami, Fla., office of the **Graybar Electric Company,** has been appointed acting service manager at Jacksonville, Fla., to succeed **A. W. Palin, Jr.,** who has been granted a leave of absence to take up active duty as a Captain in the U. S. Army Air Corps.

William L. Batt, deputy chairman of the War Production Board, will make the address of welcome at the presentation of the Army-Navy production award to the **Leeds & Northrup Company** on September 5. The ceremonies will be attended by company employees and their friends.

Roy M. Smith has joined the **Roller-Smith Company,** Bethlehem, Pa., as assistant chief engineer. Mr. Smith was formerly with the Bryant Electric Company, where he was engineering manager for the wiring device division. Prior to this, he was with the Westinghouse Electric & Manufacturing Co. as section engineer on relay design and application.

Through the erection of several new plants, floor space of the **Ready-Power Company,** Detroit, Mich., has been increased approximately 600 per cent and the production of Ready-Power gas-electric power plants for industrial truck operation is now more than three times greater than it was at the beginning of 1941. The company is operating 100 per cent on war production.

The executive sales office of the Columbia Chemical division of the **Pittsburgh Plate Glass Company** has been moved to Pittsburgh, Pa., from New York. Also involved in the transfer are the chemical division's traffic and advertising departments. **W. I. Galliher,** director of sales of the chemical division, will be in charge of sales activities at the new Pittsburgh headquarters.

The Square D Company, Detroit, Mich., manufacturers of electrical equipment, has announced the opening of two new branch offices. **C. T. Nash,** formerly with the company's New York office, has charge of a new office at Springfield, Mass., and **W. W. Hendrickson** has been transferred from the Charlotte, N. C., office to open a new office in Greensboro, N. C.

The joint Army-Navy award for outstanding achievement in the production of war materials was conferred on the Minneapolis, Minn., plant of the **Minneapolis-Honeywell Regulator Company** on August 18, during a ceremony witnessed by more than 4,000 employees and guests. The award preceded by one day a similar celebration held at Wabash, Ind., where another of the company's six plants is located.

John F. Van Nort, sales manager, Western division of the **Duff-Norton Manufacturing Company,** Pittsburgh, Pa., with headquarters at Chicago, has been promoted to general sales manager at Pittsburgh. Mr. Van Nort was born at Fairmont, W. Va., on July 27, 1898, and began his business career in 1922 as a salesman with the Oil Well Supply Company (a subsidiary of the United States Steel Corporation) at Pittsburgh, Pa. He

John F. Van Nort

later served in various capacities in the sales department of that company, including those of branch store manager and special representative of the Eastern division. In 1934 he was promoted to manager of Pittsburgh sales, with headquarters at Pittsburgh, which position he held until 1941, when he resigned to become Western division sales manager of Duff-Norton.

OBITUARY

Harry T. Thompson, district manager of the Metal & Thermit Corp., died on August 19. He was 53 years of age. Mr. Thompson was graduated from the Georgia Institute of Technology in 1912. During World War I he served in France as a captain in the field artillery. After returning to civilian life, he became associated with the Differential Steel Car Company, Findlay, Ohio, and was later made a vice-president and director of the company, an association which continued until his death. He joined the sales organization of the Metal & Thermit Corporation in 1931. Shortly thereafter, he was appointed district manager and placed in charge of the company's Pittsburgh, Pa., branch, which serves the central Atlantic and southeastern states.

Henry Etter Passmore, railway supply representative at Pittsburgh, Pa., died July 5. He was 72 years of age. Mr. Passmore was educated at the York (Pa.) Collegiate Institute (1880-84) and the Maryland Institute (1884-88). He entered railway service in 1886 as a machinist apprentice of the Northern Central at Baltimore, Md. At the completion of his apprenticeship, he continued as a machinist on the same road for a year and then joined the Norfolk & Western in a similar capacity, subsequently advancing to gang foreman and division shop foreman. He was track foreman of the Baldwin Locomotive Works from 1896 to 1898; general foreman of the Philadelphia & Reading, 1898-99; assistant master mechanic of the Western Maryland, 1899 to October, 1902; superintendent—motive power and equipment, Detroit Southern, 1902 to April, 1903; and was appointed master mechanic of the Toledo & Ohio Central in 1903. He left that service in October, 1913, to enter the sales department of the Grip Nut Company. He went to Pittsburgh as sales manager of the Davis Brake Beam Company in August, 1925, and had made his headquarters in that city ever since. At the time of his death he was railway supply representative of the Frost Railway Supply Company, the Koppers Company—American Hammered Piston Ring division, and the Slaymaker Lock Company.

TRADE PUBLICATION

WELDING EQUIPMENT FOR RAILROAD SERVICE.—Welding equipment for all five types of railroad service—maintenance of way, shop maintenance, roundhouse maintenance, car building, and general repairs, maintenance and construction—is described and illustrated in bulletin B-3050 issued by the Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

Construction

BALTIMORE & OHIO.—This road has awarded a contract for work in connection with the construction of a second track, including the widening of three bridges, from Benning to Chesapeake Junction, in the District of Columbia, to the Empire Construction Company of Baltimore, Md., at estimated cost of $42,000.

CHICAGO & EASTERN.—A Red Devil locomotive coaler has been ordered from the Ross and White Company, Chicago, for erection at Terre Haute, Ind.

MINNEAPOLIS & ST. LOUIS.—A Red Devil locomotive coaler has been ordered from the Ross and White Company, Chicago, for erection at Peoria, Ill.

MISSOURI & ARKANSAS.—A Red Devil locomotive coaler has been ordered from the Ross and White Company, Chicago, for erection at Harrison, Ark.

Financial

CHICAGO, ROCK ISLAND & PACIFIC.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon a line extending from Stockton, Iowa, to Tipton, 21.7 miles.

COLORADO & SOUTHERN.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has approved a voluntary plan of reorganization for this company whereby the Reconstruction Finance Corporation will assent to a proposal for the reduction of bond interest and the extension of maturities, details of which were given in the *Railway Age* of September 27, 1941, page 499. In approving the plan Division 4 found that the Colorado & Southern and the Fort Worth & Denver City are not in need of financial reorganization in the public interest at this time, provided that the plan for the extension of maturities and modification of interest charges is carried out.

DETROIT & MACKINAC.—*Bonds.*—This company has been granted authority by Division 4 of the Interstate Commerce Commission to pledge and repledge to and including December 31, 1942, $500,000 of mortgage bonds as collateral security for indebtedness totaling $140,000, evidenced by a short-term note or notes.

DELAWARE & HUDSON.—*Sued by Albany & Susquehanna.*—The Albany & Susquehanna has filed suit against the Delaware & Hudson, seeking to authorize the latter to pay part of the Susquehanna's federal corporate income taxes out of $315,000 in cash dividends heretofore paid annually to A. & S. stockholders. For use of 142 miles of the Susquehanna's track between Albany, N. Y., and Binghamton, the D. & H. pays each year $120,750 directly to the railroad, $350,000 interest on bonds of the Susquehanna and $315,000 in dividends to the railroad's stockholders. The Albany & Susquehanna, out of the $120,750 received directly, pays federal taxes on that sum, plus the $315,000 paid to its stockholders, which is considered part of its income for tax purposes. The suit alleges that current taxes amounting to $134,000 on 1941 income and an estimated $196,000 for 1942 exceed the amount received directly by the Albany & Susquehanna from the D. & H.

FLORIDA EAST COAST.—*Bond Purchase Plan.*—The offer of the Florida National Building Corporation, controlled by the trustees of the Alfred L. du Pont estate, to purchase from four institutions, represented by the committee for series A first and refunding 5 per cent bonds due 1974, $3,000,000 principal amount of the bonds at a price of 16½ per cent flat, has been accepted by three of the institutions, namely, J. P. Morgan & Co., Inc., the Metropolitan Life Insurance Company, and the Northwestern Mutual Life Insurance Company, which hold a combined total of $1,987,000 of the bonds. The First National Bank of New York, which holds $1,192,000 of the bonds on deposit with the committee, has not yet indicated its acceptance of the offer. The Florida National has also offered to purchase at the same price, until September 15, 1942, all bonds held by any other depositors. (See *Railway Age*, August 15, page 289, for previous item.)

INDIANA.—*Sale Approved.*—Trustee for the Midland United Company, which controls the Indiana, has received court approval for the sale of the railroad to the Wesson Company of Chicago for $650,000.

NEW YORK, ONTARIO & WESTERN.—*Court Adjourns Back Taxes Hearing.*—The U. S. District court at New York will consider the motion of this road to make a 6 per cent payment of back taxes to various municipalities in New York state (about $1,100,000), on October 8. On that date the court will also consider a motion of the treasurer of Sullivan County for an order directing the railroad to pay the full $300,000 tax claims of the county.

READING.—*Bonds of the Philadelphia, Newton & New York.*—The Philadelphia, Newton & New York has been authorized by Division 4 of the Interstate Commerce Commission to extend from October 1, 1942, to October 1, 1967, the date of maturity of $507,000 of three per cent mortgage bonds and $1,093,000 of five per cent mortgage bonds, to bear interest during the extended period at the rate of three per cent per year. At the same time the Reading was granted authority to assume liability, as guarantor, for the payment of the principal of and the interest on the bonds as extended.

RUTLAND.—*Plan of Reorganization Filed.*—A plan of reorganization for this railroad, which has been in receivership since May 5, 1938, was filed in the U. S. district court at Burlington, Vt., on August 12, by Hubert F. Atwater and W. C. Ewen, who were appointed by the court to formulate a plan. The proposed plan provides for a capitalization of $2,500,000 of first mortgage 4 per cent income bonds, dated January 1, 1943, and payable January 1, 1973, and 90,000 shares of $100 par value common stock—after exchange of outstanding bonds. Of these, only $2,457,750 of bonds and 85,560 shares of common stock will be issued. No provision is made for existing preferred and common stock issues. Hearing on the plan is scheduled for September 12 in the U. S. district court at Rutland, Vt.

Existing outstanding indebtedness and capitalization of the Rutland includes prereceivership claims, unsecured, of $3,000 (to be settled prior to consummation of plan); unpaid taxes due the state of Vermont for last six months of 1937 and full year 1938 amounting to $189,000 plus penalties (to be settled and discharged upon consummation of the plan); $3,491,000 Rutland first consolidated mortgage 4½s due 1941; $4,400,000 Ogdensburg & Lake Champlain first mortgage 4s due 1948; $1,325,000 Rutland-Canadian first mortgage 4s due 1949; 89,625 shares of 7 per cent $100 par value preferred stock; and 1,178 shares of $100 par value common stock. Fifty per cent of the interest installment due on January 1, 1937; 70 per cent of interest due on July 1, 1937, and January 1, 1938; and all subsequent interest due on above mentioned bonds are in default. No dividends have been paid on preferred stock since October 15, 1931, and none were ever paid on the common stock.

Under the plan, for each $1,000 bond deposited, cash and new securities are to be exchanged as follows: for first consolidated 4½s—$250 income bond, 10 common shares and $10 cash; for Ogdensburg & L. C. 4s—$300 income bond, 8½ common shares and $25 cash; for Rutland-Canadian 4s—$200 income bond, 10 common shares and $20 cash. In addition, 2,000 shares of capital stock of the Rutland Transit Company, now subject to lien of mortgage securing the Ogdensburg & Lake Champlain bonds, are to be placed in a voting trust and voting trust certificates distributed pro rata to holders of these bonds. If the stock is sold or the Rutland Transit Company liquidated prior to consummation of the plan, the cash proceeds are to be distributed pro rata to the bondholders. The voting trust will be effective for 10 years and will empower the trustees to sell the deposited stock as a whole at any time for not less than $200,000, or for such lesser price as approved by a majority of the holders of the certificates.

Interest charges on the $2,457,750 of income bonds proposed in the plan would amount to $98,310. Income available for bond interest in 1941 amounted to $330,819. A computation on the basis of applying the increased freight and passenger rates effective February 10 and March 18, 1942, to the traffic of 1941, and assuming for the full year the 12½ per cent wage increase effective September 1, 1941, shows income available for bond interest in 1941 amounting to $168,930.

WABASH.—*Assumption of Liability.*—This road has applied to the Interstate Commerce Commission for authority to assume liability for one-sixteenth of the interest and sinking fund installments on $34,300,000 of general mortgage bonds, and $6,673,000 of refunding and improvement bonds of the Terminal Railroad Association of St. Louis; for one-fifth of the principal and interest payments on a part of $50,000,000 of Chicago & Western Indiana consolidated mortgage bonds, and a joint and several obligation for $24,462,000 of that road's first and refunding mortgage 4¼ per cent bonds, series D; and for one-twelfth of the interest and sinking fund payments on $50,000,000 of the Kansas City Terminal Railway Company's mortgage bonds. The applicant also seeks authority to exercise stock control jointly with other proprietary tenants of the Terminal of St. Louis, the C. & W. I., the Belt Railway of Chicago, and the Kansas City Terminal.

Dividends Declared

New York, Lackawanna & Western.—$1.25, quarterly, payable October 1 to holders of record Septembr 4.

Average Prices Stocks and Bonds

	Sept. 1	Last week	Last year
Average price of 20 representative railway stocks..	27.30	27.71	30.67
Average price of 20 representative railway bonds..	66.48	66.18	65.60

Railway Officers

EXECUTIVE

N. W. Willard, assistant to the president of the Atchison, Topeka & Santa Fe, has been promoted to the newly created position of executive assistant to the president and has been succeeded by **R. G. Rydin,** chief clerk to the president, who

N. W. Willard

in turn has been replaced by **E. S. Marsh,** auditor of disbursements at Topeka, Kan. Mr. Willard was born in Illinois and graduated from Knox College, after which he was a post graduate student at Harvard and Columbia universities. He began his career as an athletic director and professor of Greek at Knox College and in 1905 became a traveling auditor for the Santa Fe. He was made a clerk in the president's office in 1906 and after serving in various capacities was made chief clerk

R. G. Rydin

to the president in 1910. During Federal Control of the railroads, Mr. Willard served for a period as assistant to the federal manager and later returned to the Santa Fe as assistant to the president, which position he has held to the present time.

Mr. Rydin was born in Chicago and attended Northwestern university night school. He began his railroad career in 1916 as a clerk in the office of the president of the Santa Fe. From 1920 to 1924 he was secretary to the president and was later made assistant chief clerk in the president's office. He was appointed chief clerk in 1937, from which position he is being promoted to his new position.

Vernon P. Turnburke, general auditor of the Great Northern, with headquarters at St. Paul, Minn., has been promoted to assistant to the president. Mr. Turnburke was born in Washington, D. C., and entered railway service as a messenger boy of the Pennsylvania. He later attended the University of Michigan, graduating in civil engineering in 1911. He then returned to railway service in the bridge engineering department of the Michigan Central at Detroit, and later went with the Chicago, Milwaukee, St. Paul & Pacific at Chicago on similar work, later being assigned to statistical work. In 1917 Mr. Turnburke went with the Great Northern as statistician. A year later he was drafted by the government for war work in Washington in connection with the Federal control of railroads and at the end of Federal control in 1920, he was manager of the operating statistics section. Returning to the Great Northern, he continued as statistician, and

Vernon P. Turnburke

in 1925 he was advanced to general auditor, which position he held until his recent promotion, effective September 1.

FINANCIAL, LEGAL AND ACCOUNTING

E. L. Keller, treasurer of the New York, Susquehanna & Western, with headquarters at New York, has been appointed secretary-treasurer, with headquarters at Paterson, N. J. **D. S. Treat,** assistant general auditor at Middletown, N. Y., has been promoted to general auditor at Paterson. **M. J. Murphy** has been appointed assistant general auditor.

E. O. Walker, car accountant of the Ft. Worth & Denver City, the Wichita Valley and the Burlington-Rock Island, with headquarters at Ft. Worth, Tex., has been granted a leave of absence to serve as assistant deputy associate director, Office of Defense Transportation, Division of Railway Transport, with headquarters at Dallas, and has been succeeded by **W. A. Gaines.**

F. C. S. Evans, solicitor in the law department of the Canadian Pacific, with headquarters at Montreal, Que., has been promoted to assistant general solicitor, with the same headquarters. **D. I. McNeill,** solicitor for the Manitoba and Saskatchewan districts, with headquarters at Winnipeg, Man., has been promoted to assistant general solicitor, with the same headquarters.

OPERATING

J. V. Nevins, chief despatcher of the Union Pacific, with headquarters at Montpelier, Idaho, has been promoted to assistant superintendent, with headquarters at Pocatello.

N. A. Link, assistant superintendent of the Canadian Pacific, with headquarters at Medicine Hat, Alta., has been promoted to superintendent at Regina, Sask., and has been succeeded by **R. C. Wheeler,** assistant superintendent at Ft. Williams, Ont.

Robert Willis Scott, superintendent of the Montreal terminals of the Canadian Pacific, with headquarters at Montreal, Que., has been appointed general superintendent of the Quebec district, with the same headquarters, succeeding **John K. Savage,** who retired under the company's pension rules on August 31, after 52 years of service.

N. J. Evans has been appointed assistant superintendent of the Syracuse division of the New York Central at Syracuse, N. Y., succeeding **J. B. Delaney,** who has been promoted to superintendent of the Pennsylvania division, with headquarters at Jersey Shore, Pa. **I. A. Olp** has been appointed trainmaster of the Buffalo division. **J. F. Nash** has been appointed assistant trainmaster of the Buffalo division.

S. F. Pitcher, executive assistant in the office of the president of the Railway Express Agency, with headquarters at New York, has been promoted to general manager of the Gulf department, with headquarters at Atlanta, Ga., succeeding **S. F. Knowles,** who has retired. **John R. Marra,** superintendent of organization and chairman of the Standard Practices Committee, with headquarters at New York, has been appointed executive assistant, succeeding Mr. Pitcher. **R. S. Hampshire,** superintendent of organization of the Central departments, with headquarters at Chicago, has been transferred to New York to succeed Mr. Marra.

Several changes in the staff of the Car Service Division, Association of American Railroads, were announced by Chairman W. C. Kendall, effective September 1. **L. M. Betts,** manager of the Closed Car Section, has been appointed manager of the re-created Railroad Relations Section, the activities of which were consolidated with those of the chairman several years ago. **R. E. Clark,** assistant to the chairman, has

been appointed manager of the Closed Car Section, succeeding Mr. Betts; while **C. R. Megee,** assistant manager of the Open Top Section, has been appointed manager of that section, succeeding **W. J. McGarry,** whose duties as manager of the Ore and Coal Exchange, Cleveland, Ohio,

L. M. Betts

have been requiring an increasing amount of time. Mr. McGarry will continue with the Division in an advisory capacity. **R. B. Hoffman,** former superintendent of transportation of the Pacific Fruit Express, has been appointed manager of the Refrigerator Car Section, with headquarters at Chicago. **E. W. Coughlin,** secretary of the Division, and **A. F. Swinburne** have been appointed assistants to the chairman, and the position of secretary has been abolished. The announcement also said that because of the increased responsibilities in connection with the duties of district manager at Chicago, **W. D. Beck** hereafter will devote his entire time to that office.

Mr. Betts was born August 14, 1879, at Burr Oak, Mich., and he first entered rail-

R. E. Clark

road service in 1900 as a stenographer on the Chicago & Western Indiana and Belt Railway of Chicago. Two years later he left the service for a brief period during which he was employed as a bookkeeper by the Walker Estate, Chicago. In 1903 he was back with the C. & W. I. and Belt, serving from that time until 1911 as chief clerk to the superintendent, general superintendent, and the general manager. From 1911 until 1918, Mr. Betts was car accountant of the Belt, and during 1918-1919 he was with the United States Railroad Administration as supervisor of car service under the regional director for the Northwestern Region. In 1920 he became supervisor of transportation under the same administration, then assistant director of the American Petroleum Institute's Transportation Division, and finally manager of the Car Service Division's Closed Car Section, a position in which he served for 22 years up to the time of his present appointment.

Mr. Clark was born July 23, 1896, at St. Joseph, Mo., and was graduated from Pratt Business College in that city in 1914. Shortly thereafter he entered railroad service with the Chicago, Burlington & Quincy, serving as chief clerk and assistant yardmaster at Kansas City, Mo., until March, 1922, when he left to spend a few months in the retail grocery business, and to serve from July, 1922, until June, 1923, as assistant traffic manager of the Schreiber Milling & Grain Company, Kansas

C. R. Megee

City. On July 1, 1923, Mr. Clark entered the service of the A. A. R. as car service checker, and he was car service agent from January, 1924, until June, 1926, when he began a six-year period of service as secretary of the Trans-Missouri-Kansas Shippers Advisory Board. From February until May, 1932, he was office assistant to the chairman of the Car Service Division at Washington, D. C., and from the latter date until 1941 he was in turn district manager at Seattle, Wash., and St. Louis, Mo. Since 1941 Mr. Clark has been assistant to the chairman at Washington.

Mr. Megee was born on a farm near Milton, Del., December 7, 1888, and he was educated in the Delaware public schools and LaSalle Extension University. He entered railroad service in April, 1905, as assistant to agent and telegraph operator on the Baltimore, Chesapeake & Atlantic (now Pennsylvania) at Easton, Md. In December, 1907, Mr. Megee entered the service of the Pennsylvania as telegraph operator on the Delaware division, and he thereafter served in various transportation department positions, including operator, extra agent, chief clerk, agent, and train dispatcher. He has been with the Car Service Division since April, 1923, serving in turn as car service agent, district manager at Detroit, Mich., and Pittsburgh, Pa., and assistant manager of the Open Top Section which he now heads.

Mr. Coughlin was born at Richmond, Mo., on December 21, 1892, and he was

E. W. Coughlin

graduated from St. Mary's (Kansas) College in 1910. In the same year he entered railroad service with the Chicago, Rock Island & Pacific, serving in various positions in the bridge and building department, freight claim department, division superintendent's office, and as car distributor until 1918. From August, 1918, until September, 1919, he was in the Department of the Adjutant General, U. S. Army; and from October, 1919, until December, 1920, he was an inspector for the Car Service Section of the United States Railroad Administration. From January, 1921, until he became associated with the Car Service Division in 1923, Mr. Coughlin was car service inspector for the Missouri-Kansas-Texas. Since 1923 he has been in turn car

Harris & Ewing

A. F. Swinburne

service agent, district manager, and secretary of the Division.

Mr. Swinburne was born June 7, 1906, at Atlantic City, N. J., and he attended George Washington University, Washington, D. C. He has been with the Car Service Division since 1921, serving in

various capacities. During 1938 he was car service agent at Buffalo, N. Y., returning to Washington the following year to become chief clerk of the Division. From July, 1940, until December, 1941, Mr. Swinburne was furloughed from the A. A. R. to assist Ralph Budd, president of the Chicago, Burlington & Quincy, who was then transportation commissioner of the former Advisory Commission to the Council of National Defense.

W. F. Tully, superintendent of the Farnham division of the Canadian Pacific, with headquarters at Farnham, Que., has been appointed superintendent of the Montreal terminals, with headquarters at Montreal, Que., and has been succeeded by **E. C. McKay,** assistant superintendent at Montreal.

TRAFFIC

C. W. Brandenburg has been appointed general agent of the Pere Marquette at St. Louis, Mo., to succeed **E. B. Wood,** retired.

W. H. Whyte has been appointed acting general agent of the Norfolk & Western, with headquarters at Philadelphia, Pa., succeeding Mr. Fink, general agent, who has entered military service.

D. G. Barnard, passenger traffic representative of the Gulf, Mobile & Ohio at St. Louis, Mo., has been promoted to the newly created position of division passenger agent at that point.

W. L. Allen, commercial agent of the Clinchfield at Jacksonville, Fla., has been promoted to district freight agent at Augusta, Ga., succeeding **J. B. Simpson,** who has been transferred to Kingsport, Tenn.

Hoyt W. Lee, general agent of the Louisville & Nashville, with headquarters at Mobile, Ala., has been promoted to division freight agent with the same headquarters.

Julius J. Alms, chief clerk, passenger traffic department of the Chicago, Burlington & Quincy at Chicago, has been promoted to assistant general passenger agent, with the same headquarters.

William J. Garrity, traveling freight and passenger agent of the Great Northern at Helena, Mont., has been promoted to general agent at that point, succeeding **Shirley A. Garrity,** who has enlisted in the U. S. Navy.

Paul J. Naugle, city freight agent of the Illinois Central at Chicago, has been promoted to general agent at Cincinnati, Ohio, to succeed **S. J. Vaughn,** who is on leave of absence because of service in the U. S. Army.

Clyde C. Cox, commercial agent of the Southern at New Orleans, La., has been promoted to district freight and passenger agent at Shreveport, La., succeeding **Charles C. Correll,** who has been furloughed for Army service.

Rudolph G. Raasch, assistant general freight agent of the Illinois Central, with headquarters at Chicago, has been elected chairman of the Illinois Freight Association to succeed **Roland A. Sperry,** who died in June, 1941.

H. W. Lee, general agent of the Louisville & Nashville at Mobile, Ala., has been appointed, effective September 1, division freight agent at that point. **Marshall Haynes,** traveling passenger agent at Birmingham, Ala., has been promoted to division passenger agent at Birmingham, succeeding **P. W. Morrow,** retired.

M. R. Garrison, assistant to vice-president of the New York Central, with headquarters at New York, has been appointed assistant freight traffic manager, with the same headquarters. **G. H. Clark,** assistant freight traffic manager, has been appointed assistant to freight traffic manager, with headquarters as before at New York.

A. R. Savage, superintendent of the Port Tampa, Fla., terminals of the Atlantic Coast Line, has accepted a commission in the United States Army. The position formerly held by Mr. Savage has been temporarily abolished. **H. W. Brandon** has been appointed general agent at Port Tampa.

J. M. Hurley, agricultural and industrial agent of the New York, Ontario & Western, with headquarters at Middletown, N. Y., has been promoted to general agricultural agent, with headquarters at Middletown and New York. Mr. Hurley entered the service of the New York, Ontario & Western in 1927 as agricultural agent and became agricultural and industrial agent in 1936.

Robert S. Hirsch, Eastern general freight agent of the Atchison, Topeka & Santa Fe, with headquarters in New York, has been promoted to the newly created position of Eastern freight traffic manager, with the same headquarters. He was born in Long Beach, Cal., and began his railroad

Robert S. Hirsch

career as a file clerk in the Santa Fe's general freight office at Los Angeles, Cal., in 1915. During the last World War he served with the U. S. Navy, returning to the Santa Fe in 1919. In March, 1922, he was appointed city freight agent at Fresno, Cal., and in May of the same year was promoted to traveling freight and passenger agent at Sacramento, Cal. He later became general agent in the same territory. He was appointed division freight agent at Los Angeles in 1936 and in 1940 was made assistant general freight agent at Kansas City, Mo. Later in 1940 he was promoted to Eastern general freight agent.

W. H. Billings, assistant general freight agent of the New York, Ontario

W. H. Billings

& Western, with headquarters at Detroit, Mich., has been promoted to assistant Western traffic manager, with the same headquarters. Mr. Billings was born at Milwaukee, Wis., on April 17, 1895, and after leaving the service of the Michigan Central, he went with the New York, Ontario & Western as traveling freight agent at Chicago. He was later in charge of the St. Louis, Mo.; Cleveland, Ohio; and Pittsburgh, Pa., offices, and on January 1, 1938, he was appointed assistant general freight agent at Detroit, which position he held until his recent promotion.

F. T. Clougher, traveling freight agent of the Wabash with headquarters at Toledo, Ohio, has been promoted to division freight and passenger agent with headquarters at Moberly, Mo., to succeed **E. R. O'Brien,** transferred. **M. L. Courtney,** traveling freight agent at Denver, Colo., has been promoted to general agent with the same headquarters to succeed **C. J. Helber,** retired.

Harold W. Benn, agricultural agent of the Union Pacific for Nebraska, Kansas, Colorado and Wyoming, with headquarters at Omaha, Neb., has been granted a leave of absence to enter the army and has been succeeded by **Lee H. Wagner,** agricultural agent for Idaho, Oregon, Washington and Montana, with headquarters at Boise, Idaho, who in turn has been replaced by **I. W. Slater,** county agent in Bingham county, Idaho, with headquarters at Blackfoot.

E. J. Lillis, freight traffic manager (rates and divisions) of the New York, Susquehanna & Western, with headquarters at New York, has been appointed traffic manager, with headquarters at Paterson, N. J. **W. P. Holabird** has been appointed general freight agent and **D. F.**

Merriam has been appointed assistant general freight agent. **E. H. P. Gilman** has been appointed general passenger agent and **M. L. Kimble** has been appointed superintendent of car service. All the above will have their headquarters at Paterson.

John H. Christy, whose promotion to Western traffic manager of the Delaware, Lackawanna & Western at Chicago was reported in the *Railway Age* of August 29,

Merrill Chase

John H. Christy

was born at Spencer, Ind. He attended Valparaiso (Ind.) University and Tri-State College, Angola, Ind., and entered railroad service on June 1, 1912, as stenographer in the Union ticket office at Indianapolis. On March 1, 1913, he became stenographer for the Canadian Pacific and on December 1, 1913, he went with the Peoria & Eastern (now Cleveland, Cincinnati, Chicago & St. Louis) in the same capacity. On March 1, 1914, he became contracting agent, Lackawanna Line, at Indianapolis and in February, 1918, he was appointed traffic inspector for the United States Railroad Administration. On March 1, 1920, Mr. Christy returned to the Lackawanna as traffic representative at Indianapolis and in October of that year he became commercial agent at St. Paul, Minn. He was promoted to general dairy agent at Chicago in February, 1925, and on August 1, 1933, he became assistant Western traffic manager, which position he held until his promotion to Western traffic manager, effective September 1.

ENGINEERING & SIGNALING

R. E. Patterson, who has been acting chief engineer, construction and maintenance of the Lehigh Valley at Bethlehem, Pa., has been appointed chief engineer, construction and maintenance.

J. C. Wallace, assistant general superintendent of the New York, Chicago & St. Louis, with headquarters at Cleveland, Ohio, has been promoted to chief engineer, with the same headquarters, to succeed **A. C. Harvey,** deceased.

Waldo F. Follett, whose appointment as assistant to chief engineer of the New York, New Haven & Hartford at New Haven, Conn., was reported in the *Railway Age* of July 11, was born on November 8, 1872, at Valley Falls, R. I. He entered the service of the New Haven in 1892, becoming an electrician on June 1, 1900, and electrical inspector in July, 1907. On August 16, 1912, he was appointed assistant engineer and on May 31, 1918, he became assistant signal engineer. Mr. Follett was appointed office engineer on September 21, 1934, and assistant signal engineer on May 1, 1940. He was promoted to signal engineer on November 1, 1940, which position he held until his promotion to assistant to chief engineer, effective July 1.

MECHANICAL

R. M. Barnett has been appointed chief electrician of the Southern, with headquarters at Spencer, N. C.

O. M. Hoenshell, road foreman of locomotives of the Chicago, Burlington & Quincy with headquarters at Lincoln, Neb., has been promoted to assistant master mechanic with jurisdiction over the Omaha division with headquarters at Havelock following the retirement of **G. E. Johnson,** master mechanic.

G. T. Callender, superintendent of shops of the Missouri Pacific at Sedalia, Mo., has been appointed acting mechanical superintendent, Western district, with headquarters at St. Louis, Mo., to succeed **F. R. Hosak,** who has been called to military service, and has been succeeded by **S. O. Rentschler,** general foreman of the locomotive department at Sedalia.

L. A. Porter, mechanical engineer of the Seaboard Air Line at Norfolk, Va., has been appointed assistant to general superintendent motive power, with the same headquarters, succeeding the late **F. A. Weatherford,** general mechanical inspector. **E. L. Cook,** assistant mechanical engineer at Norfolk, has been promoted to mechanical engineer, succeeding Mr. Porter. **R. E. Lee** has been appointed assistant mechanical engineer, succeeding Mr. Cook.

PURCHASES AND STORES

N. L. Satchell, storekeeper of the New York, Susquehanna & Western, with headquarters at Middletown, N. Y., has been promoted to purchasing agent, with headquarters at Paterson, N. J.

SPECIAL

Dr. Milton B. Clayton has been appointed chief surgeon of the Southern, with headquarters at Washington, D. C., succeeding the late **Glenn I. Jones.**

OBITUARY

Otis B. Price, assistant general passenger agent of the Southern at Asheville, N. C., died of a heart attack on July 27 at his home in that city, at the age of 44. Mr. Price was born on August 27, 1897, at McIntyre, Ga., and entered the service of the Southern at Atlanta, Ga., on June 1, 1915, as a yard office clerk, serving successively as ticket agent, city passenger agent, traveling passenger agent and assistant general passenger agent.

David O. Ouellet, president of the American Refrigerator Transit Company, St. Louis, Mo., died in Tomahawk, Wis., on August 27.

James H. Gormley, secretary-treasurer of the Pullman Railroad, with headquarters at Chicago, died in that city on August 29 of a heart ailment.

Alvin C. Harvey, chief engineer of the New York, Chicago & St. Louis, with headquarters at Cleveland, Ohio, whose death on August 22 was reported in the *Railway Age* of August 29, was born at Mansfield, N. Y., on December 24, 1883, and was graduated from Purdue University in 1908. Before his graduation from college he had been employed as a rodman and draftsman in the engineering department of the Nickel Plate, and he returned to that company in June, 1908, as a rodman and transitman on station ground surveys between Cleveland, Ohio, and Buffalo, N. Y. In March, 1909, Mr. Harvey was promoted to assistant engineer on a grade crossing elimination project, where he remained until March, 1910, when he was placed in charge of a double track survey

Alvin C. Harvey

in New York and Pennsylvania. A few months later he was placed in charge of track elevation at Grand Crossing, Ill., and he continued there until June, 1916, when he was placed in charge of field work on a grade crossing elimination project in Cleveland. Mr. Harvey was promoted to field engineer at Cleveland in January, 1917, and in September, 1918, was promoted to engineer of grade crossing elimination, in charge of the west side grade crossing elimination at Cleveland. He was promoted to assistant chief engineer of the Nickel Plate district in December, 1921, and in August, 1924, was also given jurisdiction over the Lake Erie and Western district. He continued in that capacity until June 1, 1925, when he was promoted to chief engineer, with headquarters at Cleveland, which position he held until his death.

Table of Revenues and Expenses begins on next left-hand page

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1942

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Operating income	Net railway operating income 1942	Net railway operating income 1941
Akron, Canton & Youngstown	July	171	$285,195	$114	$301,122	$71,393	$31,589	$14,934	$81,737	$212,127	70.4	$88,995	$62,400	$48,335	$64,857
	7 mos.	171	1,828,484	533	1,902,157	323,751	204,394	106,609	558,803	1,274,789	67.0	627,368	440,182	344,034	434,422
Alton	July	959	2,203,176	480,474	3,023,121	298,846	374,984	52,319	867,448	1,693,164	56.0	1,329,957	704,126	487,504	250,605
	7 mos.	959	12,074,400	2,595,374	16,424,568	1,747,499	2,321,865	350,255	5,951,267	11,034,960	67.2	5,389,608	3,536,303	2,148,176	1,018,891
Atchison, Topeka & Santa Fe System	July	13,361	29,556,942	4,624,394	35,985,581	3,318,146	4,634,020	468,564	8,379,120	17,234,135	47.9	18,751,446	9,435,199	8,923,990	6,495,986
	7 mos.	13,364	151,938,425	23,337,890	187,212,902	19,553,657	30,209,508	3,384,678	53,223,876	109,464,177	58.5	77,748,725	37,801,869	36,473,298	20,343,461
Atlanta & West Point	July	93	225,794	92,875	350,324	30,265	37,387	9,267	104,684	195,241	55.7	155,083	84,376	66,267	18,373
	7 mos.	93	1,389,065	474,426	2,069,833	183,153	244,500	63,925	687,741	1,277,199	61.7	792,634	427,053	298,420	96,880
Western of Alabama	July	133	249,900	96,049	383,530	29,600	46,362	9,106	112,890	210,523	54.9	173,007	87,989	82,625	28,670
	7 mos.	133	1,543,164	490,281	2,238,736	203,462	295,192	63,048	690,550	1,342,034	59.9	896,702	455,019	415,884	130,136
Atlanta, Birmingham & Coast	July	639	495,813	34,123	553,734	61,406	67,672	25,869	196,601	367,173	66.3	186,561	58,373	24,207	41,179
	7 mos.	639	2,716,338	227,456	3,117,446	380,282	442,292	185,516	1,267,869	2,399,238	77.0	718,208	427,628	195,268	87,673
Atlantic Coast Line	July	5,008	6,330,298	2,050,750	8,874,099	645,595	1,426,932	162,747	2,652,873	5,151,432	58.1	3,722,667	722,667	529,062	602,960
	7 mos.	5,008	44,417,269	12,723,366	60,841,344	4,364,682	9,552,502	1,257,056	18,513,916	35,707,722	58.7	25,133,622	14,578,622	12,620,090	7,487,594
Charleston & Western Carolina	July	343	310,595	10,904	327,437	35,062	43,346	9,936	98,233	192,239	58.7	135,198	60,198	61,642	79,688
	7 mos.	343	2,148,047	60,665	2,253,184	235,021	320,618	70,369	686,410	1,356,570	60.2	896,614	551,614	529,274	551,522
Baltimore & Ohio	July	6,248	23,307,862	2,520,467	26,996,294	2,513,280	5,423,391	456,135	8,080,587	17,350,731	64.3	9,645,563	6,172,484	5,495,051	4,833,304
	7 mos.	6,259	146,069,205	13,103,213	166,971,864	14,446,913	36,385,427	3,210,024	54,949,491	114,597,184	68.6	52,374,680	35,068,179	31,293,636	27,088,347
Staten Island Rapid Transit	July	24	99,645	103,410	214,019	16,217	25,489	1,221	91,785	150,019	70.1	64,000	35,243	27,116	—13,189
	7 mos.	24	696,024	564,282	1,320,907	102,457	182,111	8,513	629,286	1,019,793	77.2	301,114	106,502	41,010	—108,117
Bangor & Aroostook	July	603	239,077	58,385	320,496	107,181	94,103	9,008	125,086	363,483	113.4	—42,987	—43,409	—3,110	—17,695
	7 mos.	603	3,688,655	284,592	4,141,190	682,710	662,546	42,717	1,083,925	2,658,120	64.2	1,483,070	830,111	935,215	906,278
Bessemer & Lake Erie	July	214	2,297,185	985	2,311,897	157,612	545,060	12,747	333,725	1,093,721	47.3	1,218,176	218,336	300,545	1,163,093
	7 mos.	214	11,739,412	5,737	11,842,431	1,041,737	3,994,159	95,886	2,059,508	7,468,037	63.1	4,374,394	1,272,544	1,880,229	4,603,186
Boston & Maine	July	1,862	4,553,054	1,415,817	6,523,440	853,218	923,830	79,380	2,085,494	4,191,824	64.3	2,331,616	1,454,348	1,183,572	1,044,919
	7 mos.	1,865	31,940,597	7,465,377	43,240,474	5,153,969	6,286,950	500,049	14,744,602	28,037,050	64.8	15,203,424	9,620,823	7,519,972	6,011,968
Burlington, Rock Island	July	228	111,276	38,404	159,287	19,556	15,602	2,613	55,267	103,801	65.2	55,486	45,741	37,988	7,463
	7 mos.	241	590,594	237,181	889,802	137,053	132,507	17,053	368,408	733,642	82.5	156,160	88,720	44,167	—25,586
Cambria & Indiana	July	37	186,226	.....	186,289	13,955	64,772	489	18,865	105,338	56.55	80,951	—10,310	65,305	75,934
	7 mos.	37	1,234,995	.....	1,235,479	61,286	418,647	3,430	127,320	656,418	53.13	579,061	—15,109	496,645	490,059
Canadian Pacific Lines in Maine	July	234	208,090	45,022	273,989	64,072	46,667	6,629	86,216	210,868	77.0	63,121	47,863	19,986	—51,566
	7 mos.	234	2,472,284	338,567	2,935,592	375,922	393,406	47,287	896,890	1,761,659	60.0	1,173,933	1,063,860	878,124	567,189
Canadian Pacific Lines in Vermont	July	90	105,125	7,057	127,236	28,179	24,870	2,403	79,325	138,419	108.8	—11,183	—18,821	—44,363	—37,791
	7 mos.	90	679,862	53,167	814,801	175,502	171,215	16,997	551,747	940,093	115.4	—125,292	—179,316	—352,620	—225,316
Central of Georgia	July	1,815	2,056,505	368,534	2,590,593	235,771	357,090	61,613	806,727	1,565,246	60.4	1,025,347	871,753	843,848	424,031
	7 mos.	1,815	12,023,911	2,175,260	15,387,321	1,635,313	2,443,180	424,244	5,517,291	10,711,774	69.6	4,675,547	3,682,229	3,527,909	2,187,463
Central of New Jersey	July	661	4,117,352	642,133	5,021,976	657,853	780,695	44,385	1,850,025	3,446,953	68.6	1,575,023	1,057,705	751,187	669,108
	7 mos.	661	26,845,301	3,529,757	32,133,233	3,304,381	5,478,438	334,093	12,437,109	22,312,541	69.4	9,820,692	6,518,505	4,420,826	2,479,249
Central Vermont	July	422	602,727	84,000	729,016	99,983	85,845	11,365	258,759	479,205	65.7	249,811	219,304	167,324	158,644
	7 mos.	422	3,990,381	364,000	4,633,208	584,309	687,943	77,596	1,816,391	3,320,859	71.7	1,312,349	1,096,202	799,460	879,426
Chesapeake & Ohio	July	3,115	14,340,132	1,010,603	15,926,205	1,384,912	2,689,101	220,995	3,529,259	8,207,745	51.5	7,718,460	2,266,085	2,526,837	3,849,081
	7 mos.	3,122	91,705,434	4,990,743	100,086,585	9,563,257	17,474,601	1,552,927	23,381,043	54,476,587	54.4	45,609,998	16,070,297	17,710,905	22,856,188
Chicago & Eastern Illinois	July	925	1,570,871	352,308	2,092,356	214,047	360,836	57,036	689,983	1,402,868	67.0	689,488	489,488	336,870	201,760
	7 mos.	925	9,202,846	1,948,854	12,318,073	1,300,821	2,207,318	420,503	4,477,919	8,947,124	72.6	3,370,949	2,320,949	1,438,026	1,240,333
Chicago & Illinois Midland	July	131	483,960	881	511,730	55,335	79,963	21,048	121,471	299,770	58.6	211,960	75,425	71,451	101,243
	7 mos.	131	3,349,932	5,487	3,512,521	388,421	586,895	151,967	874,344	2,155,060	61.4	1,357,461	529,518	469,451	670,029
Chicago & North Western	July	8,265	9,518,581	1,980,853	12,473,162	1,960,186	1,913,729	201,046	3,778,722	8,258,635	66.2	4,214,527	2,429,841	2,328,525	2,424,728
	7 mos.	8,265	57,482,447	10,167,177	74,332,769	9,271,846	13,696,708	1,368,059	25,819,836	52,867,082	71.1	21,465,687	13,313,204	12,120,243	9,717,282
Chicago, Burlington & Quincy	July	9,085	11,825,513	1,769,870	14,722,042	2,041,775	1,998,001	272,728	3,758,594	8,488,987	57.7	6,233,055	3,206,688	3,042,871	2,628,496
	7 mos.	9,089	67,232,401	8,783,403	83,560,294	10,154,972	13,129,522	1,778,645	25,536,221	53,348,005	63.8	30,212,289	15,674,325	14,564,632	9,963,778
Chicago Great Western	July	1,502	1,906,563	129,870	2,163,620	236,686	272,512	60,948	694,999	1,330,575	61.5	833,045	399,468	227,871	265,281
	7 mos.	1,502	12,243,307	699,974	13,832,019	1,591,580	1,916,670	432,026	4,908,398	9,283,289	67.1	4,548,730	2,704,191	1,442,567	1,536,649
Chicago, Indianapolis & Louisville	July	549	765,288	69,040	895,454	121,905	169,877	29,466	298,811	655,239	73.2	240,215	190,147	138,692	200,790
	7 mos.	549	5,636,473	379,712	6,474,287	661,148	1,177,534	207,785	2,138,869	4,438,246	68.6	2,036,041	1,688,625	1,238,394	971,297

Table of Revenues and Expenses Continued on next left-hand page

the records fall!

"... the volume of freight service rendered in that month (April*) exceeded all previous monthly records » » » It was 54 billion net ton-miles, as compared with 51 billion last October and 52 billion in March of this year — an increase *per day* of 11 per cent over these previous record months, and of 40 *per cent* over April, 1929. Averages of 101.5 miles traveled daily by each locomotive, of 46.6 miles traveled daily by each freight car, of 52.4 cars per train, and of 1,006 tons of freight per train, were all new records."

Excerpt from Railway Age
July 18, 1942

Lima Super-Power Steam Locomotives, in service on many roads throughout the country, have played an important part in this splendid achievement of American transportation.

**Latest complete figures.*

LIMA LOCOMOTIVE WORKS — LIMA LOCOMOTIVE WORKS INCORPORATED — INCORPORATED, LIMA, OHIO

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1942—CONTINUED

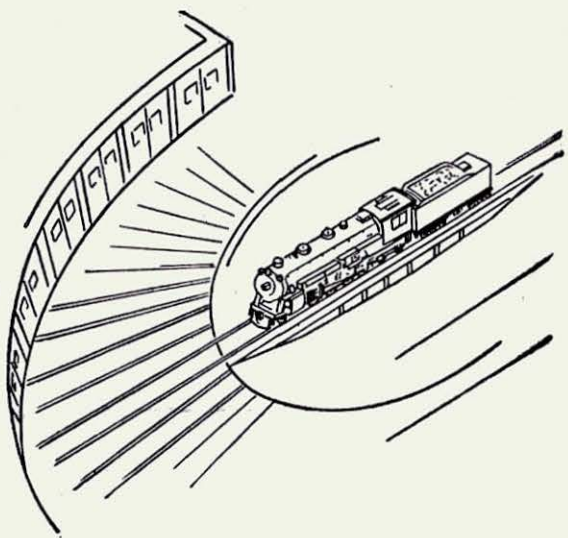
Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of: Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Operating income	Net railway operating income: 1942	1941
Chicago, Milwaukee, St. Paul & Pacific	July	10,821	$12,328,180	$1,560,833	$15,153,948	$2,797,687	$2,178,853	$246,746	$4,450,200	$10,191,522	67.3	$4,962,426	$2,846,426	$2,593,119	$3,283,239
	7 mos.	10,821	78,568,565	7,897,548	94,714,940	14,035,121	14,605,473	1,651,540	31,346,877	65,066,841	68.7	29,648,099	18,871,099	16,174,476	14,415,625
Chicago, Rock Island & Pacific	July	7,925	9,975,928	2,084,900	12,843,694	1,399,358	1,557,048	284,949	3,520,202	7,210,191	56.1	5,633,503	5,080,462	4,673,592	2,803,040
	7 mos.	7,928	54,239,520	10,907,089	69,955,802	7,635,619	10,705,229	2,009,444	23,050,031	46,444,101	66.4	23,511,701	19,740,653	17,293,189	10,495,242
Chicago, St. Paul, Minneapolis & Omaha	July	1,629	1,641,439	259,658	2,027,259	275,522	299,559	42,832	736,747	1,424,301	70.3	602,958	473,242	406,714	214,801
	7 mos.	1,629	10,616,903	1,302,232	12,752,874	1,638,735	2,166,470	290,390	5,447,379	10,035,045	78.7	2,717,829	1,839,471	1,219,725	640,963
Clinchfield Railroad	July	308	1,000,482	8,685	1,015,230	61,765	129,172	21,269	193,613	424,883	41.9	590,347	485,158	503,194	491,504
	7 mos.	308	6,951,835	39,038	7,033,539	386,557	997,717	149,228	1,383,276	3,052,048	43.4	3,981,491	3,248,233	3,296,647	3,238,216
Colorado & Southern	July	755	696,371	149,396	911,602	118,488	137,755	14,724	267,672	573,243	62.9	338,359	277,132	255,449	111,421
	7 mos.	755	4,195,149	838,721	5,461,922	533,895	940,585	103,381	1,895,076	3,701,894	67.8	1,760,028	1,353,862	1,209,590	464,739
Fort Worth & Denver City	July	804	843,056	220,222	1,165,219	65,098	104,586	23,166	253,104	492,126	42.2	673,093	632,081	582,893	223,329
	7 mos.	804	3,465,857	1,200,624	5,373,040	507,108	738,497	150,697	1,556,001	3,245,860	60.4	2,127,180	1,853,880	1,633,211	513,336
Colorado & Wyoming	July	..	108,646	.....	164,572	13,195	14,983	865	51,014	84,537	51.3	80,035	23,108	22,418	33,188
	7 mos.	..	665,773	.....	1,050,184	107,992	93,013	6,190	363,243	601,271	57.2	448,913	161,722	158,427	250,239
Columbus & Greenville	July	168	120,168	3,953	131,080	25,722	17,524	4,429	37,712	95,929	73.2	35,151	16,594	18,066	12,896
	7 mos.	168	672,174	21,912	739,081	163,139	125,167	31,603	249,587	650,516	88.0	88,565	6,377	19,334	77,263
Delaware & Hudson	July	849	3,568,801	175,518	3,859,657	420,716	749,061	42,306	1,205,168	2,530,792	65.6	1,328,865	740,272	655,588	828,885
	7 mos.	849	24,458,418	794,767	25,866,520	2,529,861	5,033,265	311,699	8,345,832	16,956,817	65.6	8,909,703	5,573,477	5,091,317	4,374,907
Delaware, Lackawanna & Western	July	985	4,800,254	907,807	6,300,589	709,137	958,427	108,283	2,228,747	4,186,779	66.5	2,113,810	942,810	916,318	1,011,812
	7 mos.	985	32,122,688	4,921,763	40,833,982	3,658,655	6,326,909	772,385	15,810,194	27,686,818	67.8	13,147,164	6,416,164	6,144,464	6,297,924
Denver & Rio Grande Western	July	2,405	4,201,664	424,486	4,807,770	449,748	761,781	87,967	1,254,820	2,697,780	56.1	2,109,990	1,865,188	1,805,899	250,217
	7 mos.	2,425	22,779,021	1,934,513	25,877,576	2,124,350	4,980,752	620,063	8,117,285	16,688,803	64.5	9,188,773	7,556,033	7,320,217	798,867
Denver & Salt Lake	July	232	219,773	7,209	236,710	41,817	44,530	2,614	68,302	167,281	70.7	69,429	41,477	94,630	90,951
	7 mos.	232	1,311,291	37,474	1,413,239	213,828	311,491	18,413	480,418	1,093,361	77.4	319,878	136,072	486,867	301,480
Detroit & Mackinac	July	242	60,572	4,794	76,175	16,750	13,326	943	25,025	59,200	77.7	16,975	13,118	11,485	13,044
	7 mos.	242	422,721	24,799	511,371	87,689	91,205	5,170	185,141	392,045	76.7	119,326	94,114	69,566	14,140
Detroit & Toledo Shore Line	July	50	331,616	.....	332,283	38,365	25,361	9,088	81,543	162,120	48.8	170,163	86,263	42,081	77,865
	7 mos.	50	2,425,503	.....	2,433,743	225,391	181,985	64,108	645,261	1,172,936	48.2	1,260,807	803,299	427,314	579,423
Detroit, Toledo & Ironton	July	465	594,615	627	636,502	68,456	103,144	14,408	163,796	372,513	58.5	263,989	141,591	146,057	247,422
	7 mos.	465	4,637,252	2,976	4,889,474	523,729	776,448	97,614	1,234,568	2,792,006	57.1	2,097,468	1,217,528	1,127,913	1,854,631
Duluth, Missable & Iron Range	July	544	5,378,424	3,654	6,279,940	340,035	348,128	4,010	838,595	1,571,855	25.0	4,708,085	1,019,112	1,023,389	3,271,547
	7 mos.	543	18,589,612	12,346	21,671,475	1,848,318	2,390,460	29,902	3,740,473	8,261,215	38.1	13,410,260	3,293,348	3,282,675	7,427,070
Duluth, Winnipeg & Pacific	July	175	130,000	1,100	134,400	38,802	28,054	2,058	62,521	134,837	100.3	—437	—12,449	—29,829	16,879
	7 mos.	175	1,197,700	6,400	1,226,900	226,695	178,054	14,143	466,195	908,982	74.1	317,918	221,576	78,893	34,692
Elgin, Joliet & Eastern	July	392	2,584,425	.....	2,958,490	221,745	568,486	16,683	926,271	1,786,785	60.4	1,171,705	325,676	229,573	681,524
	7 mos.	392	17,046,519	86	19,234,867	1,389,858	3,698,710	115,834	6,527,675	12,093,580	62.9	7,141,287	2,504,671	1,623,341	4,030,732
Erie	July	2,251	10,223,959	707,673	11,621,002	1,215,291	1,888,038	197,461	3,714,539	7,348,658	63.2	4,272,344	2,631,470	2,190,413	2,137,266
	7 mos.	2,251	66,661,718	3,940,456	75,057,429	7,041,674	12,440,327	1,369,290	25,505,928	48,625,197	64.8	26,432,232	15,882,297	13,069,663	12,303,657
Florida East Coast	July	685	898,553	600,097	1,586,264	156,219	200,109	30,773	406,673	862,475	54.4	723,789	648,834	657,934	—112,969
	7 mos.	685	6,228,795	3,571,563	10,699,083	1,035,110	1,257,662	231,831	3,200,766	6,326,927	59.1	4,372,156	3,833,103	3,528,963	1,259,270
Georgia Railroad	July	329	629,698	113,143	778,424	63,573	79,764	21,721	247,993	428,943	55.1	349,481	324,419	307,390	125,661
	7 mos.	329	3,974,291	570,461	4,775,719	374,881	530,492	149,091	1,611,357	2,781,265	58.2	1,994,454	1,841,339	1,769,579	673,659
Georgia & Florida	July	408	138,425	4,313	146,974	41,038	18,452	9,897	48,675	124,909	85.0	20,065	12,767	8,248	5,017
	7 mos.	408	950,028	24,206	1,006,857	246,272	136,014	69,925	339,451	837,203	83.2	169,654	106,360	52,424	4,243
Grand Trunk Western	July	1,026	2,485,000	166,000	2,794,000	353,583	433,930	39,468	916,205	1,824,690	65.3	969,310	822,828	771,706	585,696
	7 mos.	1,026	14,783,000	888,000	16,742,000	2,258,682	3,144,975	270,449	6,580,707	12,810,848	76.5	3,931,152	2,908,752	2,419,763	4,082,091
Canadian National Lines in New England	July	172	137,300	7,500	158,800	59,110	18,697	2,592	75,407	165,095	104.0	—6,295	—24,815	—67,808	—82,480
	7 mos.	172	1,271,400	29,600	1,412,500	355,258	193,370	17,938	664,528	1,314,637	93.0	97,863	—31,777	—450,421	—335,014
Great Northern	July	8,077	13,737,142	801,476	15,762,035	1,805,908	2,232,273	203,217	3,409,808	8,011,495	50.8	7,750,540	4,170,279	4,123,763	4,842,638
	7 mos.	8,077	71,799,052	3,972,415	82,114,373	10,598,220	14,937,224	1,456,756	22,370,521	51,582,339	62.8	30,532,034	17,072,988	16,344,975	14,795,630
Green Bay & Western	July	234	186,243	425	193,650	40,679	25,338	8,932	57,482	137,868	71.1	55,782	32,604	23,172	26,868
	7 mos.	234	1,253,386	2,444	1,296,579	238,758	157,824	64,525	390,000	888,519	68.5	408,060	264,107	201,482	181,351
Gulf & Ship Island	July	259	221,162	16,284	249,562	36,233	29,862	3,060	84,605	160,462	64.3	89,100	67,305	49,848	4,195
	7 mos.	259	1,069,952	131,540	1,299,785	196,694	171,004	21,812	490,934	927,281	71.3	372,504	244,989	145,460	31,170

Table of Revenues and Expenses
Continued on next left-hand page

SPECIAL BRICK

SHAPES

...are a nuisance



The initial standardization of Arch Brick shapes and sizes and Arch tube spacing was the work of the American Arch Company.

It is a work that goes forward constantly and saves the Stores and Mechanical Departments a vast amount of trouble.

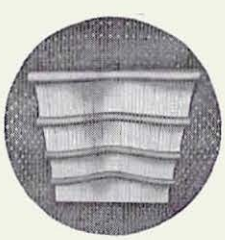
The easiest solution to many a locomotive Arch engineering difficulty would be to use a special brick shape. But this the American Arch Company is willing to do only as a last resort. Over 50% of all Arch Brick is covered by 6 separate patterns.

The insistence of American Arch Company on adhering to standards has simplified the work of the Storekeeper and Maintenance Man. It is only one of the many ways in which American Arch Company is serving the railroads.

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

HARBISON-WALKER REFRACTORIES CO.

Refractory Specialists



AMERICAN ARCH CO.
INCORPORATED
60 EAST 42nd STREET, NEW YORK, N. Y.
Locomotive Combustion Specialists

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1942—CONTINUED

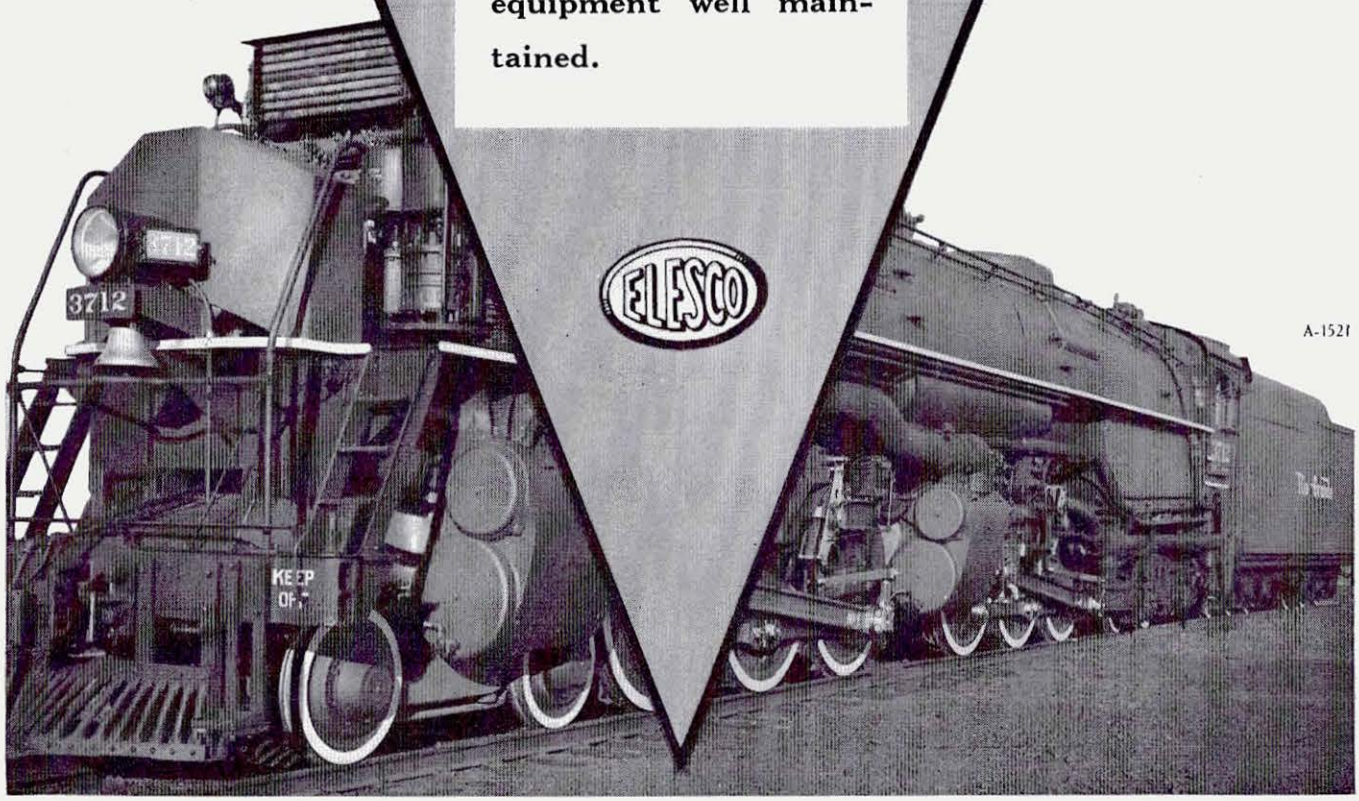
Name of road		Av. mileage operated during period	Operating revenues			Operating expenses					Operating ratio	Net from railway operation	Operating income	Net railway operating income	
			Freight	Passenger	Total (inc. misc.)	Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total				1942	1941
Gulf, Mobile & Ohio	July	1,969	$2,701,295	$90,540	$2,884,002	$330,861	$420,065	$84,984	$762,008	$1,700,357	59.0	$1,183,645	$711,645	$500,749	$339,648
	7 mos.	1,969	16,200,342	557,051	17,364,981	2,270,784	2,679,938	611,139	4,815,441	11,072,610	63.8	6,292,371	3,850,871	2,718,626	2,075,174
Illinois Central	July	4,886	12,800,125	1,625,615	15,174,860	2,131,429	2,974,469	220,253	4,205,173	9,994,779	65.9	5,180,081	2,186,345	1,780,182	1,684,296
	7 mos.	4,941	80,830,551	9,788,117	96,184,733	10,295,157	19,648,784	1,560,331	29,413,601	64,053,520	66.6	32,131,213	15,581,029	13,365,534	13,303,181
Yazoo & Mississippi Valley	July	1,550	3,030,318	202,897	3,335,635	177,684	421,974	36,638	755,813	1,463,649	43.9	1,871,986	1,701,734	1,555,616	312,131
	7 mos.	1,550	16,280,989	1,041,235	18,001,690	1,127,376	2,330,859	255,015	5,101,309	9,280,793	51.6	8,720,897	7,571,881	6,807,951	1,765,054
Illinois Central System	July	6,436	15,830,443	1,828,512	18,510,495	2,309,113	3,396,443	256,891	4,960,986	11,458,428	61.9	7,052,067	3,881,366	3,340,711	2,004,340
	7 mos.	6,491	97,111,540	10,829,352	114,186,423	11,422,533	21,979,643	1,815,346	34,514,910	73,334,313	64.2	40,852,110	23,112,872	20,210,875	15,127,625
Illinois Terminal	July	476	579,456	122,407	783,796	72,656	77,281	19,119	220,144	410,442	52.37	373,354	250,443	226,301	180,576
	7 mos.	476	3,649,405	707,824	4,811,191	423,395	578,232	131,386	1,480,529	2,812,507	58.46	1,998,684	1,342,501	1,190,970	882,482
Kansas City Southern	July	880	2,705,269	250,975	3,160,909	510,454	393,956	59,427	729,412	1,780,499	56.3	1,380,410	722,410	410,227	350,213
	7 mos.	880	15,400,214	1,123,982	17,674,188	2,201,523	2,360,463	399,483	4,381,157	9,895,850	56.0	7,778,338	5,148,338	3,827,229	2,373,288
Kansas, Oklahoma & Gulf	July	328	269,294	1,016	273,091	29,255	13,019	9,430	62,962	125,118	45.8	147,973	88,071	67,143	69,429
	7 mos.	328	1,599,470	4,503	1,622,472	159,614	91,215	67,510	400,831	798,372	49.2	824,100	511,132	367,233	501,544
Lake Superior & Ishpeming	July	156	312,830	79	408,045	38,505	37,287	831	66,427	151,667	37.2	256,378	168,430	175,283	215,748
	7 mos.	156	1,576,133	461	2,010,154	217,168	273,503	4,577	373,248	922,026	45.9	1,088,128	480,084	526,798	815,445
Lehigh & Hudson River	July	96	262,950	2,640	268,966	43,106	31,211	4,101	73,734	158,683	59.0	110,283	44,772	16,621	18,882
	7 mos.	96	1,989,153	15,120	2,015,493	200,313	211,202	30,908	557,082	1,049,218	52.0	966,275	483,598	259,804	201,411
Lehigh & New England	July	190	617,474	.....	620,265	41,735	108,290	6,625	153,340	326,469	52.6	293,796	161,311	181,723	175,492
	7 mos.	190	3,453,259	.....	3,473,725	292,598	702,668	51,484	996,483	2,167,092	62.4	1,306,633	714,233	803,958	865,673
Lehigh Valley	July	1,263	6,451,975	410,937	7,195,578	634,933	1,102,625	101,503	2,271,781	4,278,314	59.5	2,917,264	1,849,296	1,449,522	823,582
	7 mos.	1,263	37,247,919	1,876,689	41,410,413	3,882,827	6,737,641	742,777	15,437,408	27,893,990	67.4	13,516,423	8,480,527	6,076,160	6,238,134
Louisiana & Arkansas	July	877	1,275,048	80,106	1,413,161	294,873	141,924	31,643	300,199	821,088	58.1	592,073	270,684	187,428	152,449
	7 mos.	877	7,172,845	474,996	7,968,633	1,276,283	991,031	221,439	1,916,046	4,725,048	59.3	3,243,585	1,907,414	1,465,034	1,217,422
Louisville & Nashville	July	4,798	11,615,668	2,160,756	14,493,628	1,245,031	2,356,126	193,879	4,178,028	8,392,071	57.9	6,101,557	1,498,445	1,678,706	2,232,902
	7 mos.	4,798	75,050,408	10,579,521	90,223,627	8,269,441	15,852,468	1,372,198	27,282,151	55,409,650	61.4	34,813,977	10,606,120	11,704,390	13,723,939
Maine Central	July	991	1,018,320	257,061	1,392,360	217,739	285,492	14,027	478,418	1,041,854	74.8	350,506	189,977	185,264	216,579
	7 mos.	991	8,198,805	1,144,510	10,045,876	1,390,150	1,878,758	87,909	3,431,548	7,087,139	70.5	2,958,737	1,762,099	1,525,809	1,693,086
Midland Valley	July	351	120,017	14	121,786	23,003	10,445	2,303	37,438	78,824	64.7	42,962	31,513	20,903	39,330
	7 mos.	351	813,032	57	828,466	123,782	66,586	17,718	255,575	509,229	61.5	319,237	225,621	154,286	177,749
Minneapolis & St. Louis	July	1,409	987,714	25,415	1,050,016	175,053	165,533	59,440	335,548	779,694	74.3	270,322	216,137	201,422	166,667
	7 mos.	1,409	6,852,830	152,481	7,268,349	1,113,848	1,099,064	397,976	2,376,300	5,298,015	72.9	1,970,334	1,573,154	1,347,145	633,142
Minneapolis, St. Paul & Sault Ste. Marie	July	4,277	3,353,542	174,887	3,785,411	612,194	561,584	70,912	1,274,047	2,644,439	69.9	1,140,972	788,636	739,558	898,272
	7 mos.	4,277	20,437,068	732,817	22,613,573	3,273,535	3,912,745	486,058	8,545,220	16,975,078	75.1	5,638,495	3,676,228	3,209,074	2,552,089
Duluth, South Shore & Atlantic	July	550	363,020	14,807	403,094	83,878	51,328	9,494	124,244	276,554	68.6	126,540	106,452	99,826	70,466
	7 mos.	550	2,062,063	87,869	2,295,416	384,550	373,125	58,922	806,826	1,671,028	72.8	624,388	497,164	456,297	274,448
Spokane International	July	152	163,082	2,118	173,675	27,254	8,246	2,835	35,570	78,571	45.2	95,104	34,811	27,660	33,984
	7 mos.	152	690,001	10,786	754,688	121,138	55,681	18,319	203,741	431,125	57.1	323,563	214,170	179,983	101,279
Mississippi Central	July	158	141,529	1,667	145,238	26,083	16,813	7,879	29,450	85,204	58.7	60,034	51,847	43,275	22,043
	7 mos.	158	794,277	23,453	828,046	165,432	97,909	56,737	194,984	547,335	66.1	280,711	233,299	187,265	115,070
Missouri & Arkansas	July	365	149,536	2,716	159,095	24,868	14,606	7,706	42,214	97,053	61.0	62,042	—18,032	—27,718	—3,734
	7 mos.	365	840,775	13,463	909,826	164,235	98,473	53,803	324,350	680,474	74.8	229,352	113,986	35,272	47,783
Missouri-Illinois	July	..	294,442	302	295,955	35,937	20,989	4,263	64,971	132,564	44.8	163,391	72,493	61,929	82,661
	7 mos.	..	1,773,228	1,698	1,783,525	209,540	192,564	24,689	425,378	886,507	49.7	897,018	481,575	394,975	378,276
Missouri-Kansas-Texas Lines	July	3,293	3,972,351	664,975	4,952,099	1,101,036	748,195	117,664	1,393,026	3,528,365	71.2	1,423,734	1,062,069	769,829	758,880
	7 mos.	3,293	22,579,755	3,638,439	28,335,801	4,466,102	4,534,323	842,312	9,134,711	20,128,964	71.0	8,206,837	6,394,514	4,338,457	2,148,261
Missouri Pacific	July	7,128	14,020,917	1,768,113	16,734,494	1,693,947	2,008,663	278,067	4,320,141	8,679,336	51.9	8,055,158	6,819,805	5,956,858	2,825,257
	7 mos.	7,133	75,093,195	8,800,103	90,087,832	9,558,790	12,988,166	1,910,126	27,193,589	54,175,742	60.1	35,912,090	30,670,237	26,078,674	12,010,732
Gulf Coast Lines	July	1,769	1,906,853	167,623	2,164,789	314,031	246,198	47,892	631,757	1,308,889	60.5	855,900	612,186	485,920	191,979
	7 mos.	1,770	15,367,963	867,060	16,875,381	2,012,116	1,730,258	337,733	4,545,048	9,089,899	53.9	7,785,482	6,985,839	5,462,636	2,029,856
International Great Northern	July	1,155	1,469,035	241,735	1,864,521	257,456	253,970	31,665	555,129	1,166,109	62.5	698,412	621,644	552,503	121,281
	7 mos.	1,155	8,772,596	1,184,617	10,937,200	1,541,633	1,732,580	221,079	3,878,783	7,842,033	71.7	3,095,167	2,580,873	1,969,028	606,340
Monongahela	July	172	578,831	1,194	582,441	72,322	47,018	524	131,372	254,122	43.6	328,319	202,662	108,406	189,841
	7 mos.	172	4,087,000	5,025	4,107,079	437,741	309,977	3,816	920,721	1,694,400	41.3	2,412,679	1,537,550	871,054	941,575

Table of Revenues and Expenses Continued on next left-hand page

Sustain that *Extra* Capacity

Locomotives equipped with Elesco exhaust steam injectors are provided with extra boiler capacity that is unquestionably needed today to "keep 'em rolling".

Sustain that extra capacity by keeping the equipment well maintained.



ELESCO

A-1521

SUPERHEATERS • FEEDWATER HEATERS
AMERICAN THROTTLES • STEAM DRYERS
EXHAUST STEAM INJECTORS • PYROMETERS

THE SUPERHEATER COMPANY

Representative of
AMERICAN THROTTLE COMPANY, INC.
60 East 42nd Street, NEW YORK
122 S. Michigan Blvd., CHICAGO
• • •
Montreal, Canada
THE SUPERHEATER COMPANY, LTD.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1942—CONTINUED

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of Way and structures	Maintenance of Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Operating income	Net railway operating income 1942	Net railway operating income 1941
Montour	July	51	$251,863	$——	$253,072	$20,116	$55,657	$835	$55,575	$138,037	54.5	$115,035	$11,218	$46,942	$86,333
	7 mos.	51	1,514,735	.....	1,525,205	106,625	367,100	5,794	391,262	921,140	60.4	604,065	172,941	429,329	447,667
Nashville, Chattanooga & St. Louis	July	1,111	2,075,357	388,989	2,626,545	266,542	468,986	72,547	804,608	1,690,261	64.4	936,284	544,517	504,783	341,875
	7 mos.	1,111	11,964,121	1,824,409	14,955,635	1,639,606	2,767,780	515,037	5,245,557	10,675,804	71.4	4,279,831	2,510,801	2,365,166	1,903,466
Nevada Northern	July	165	56,757	1,267	61,895	9,713	3,499	1,211	9,167	29,283	47.3	32,612	11,237	13,314	11,790
	7 mos.	165	390,409	5,425	417,693	70,628	24,228	8,399	67,170	212,614	50.9	205,079	77,757	90,931	106,868
New York Central	July	10,915	37,697,905	10,212,124	52,118,234	5,584,908	8,992,333	577,461	16,421,613	33,254,343	63.8	18,863,891	9,957,009	8,307,412	5,941,366
	7 mos.	10,916	234,945,441	56,102,354	319,096,747	33,239,440	62,568,420	4,099,260	111,592,828	223,076,539	69.9	96,020,208	51,094,721	40,701,723	33,847,294
Pittsburgh & Lake Erie	July	233	2,903,697	82,046	3,057,650	243,653	849,326	40,805	826,027	2,054,390	67.2	1,003,260	71,052	525,973	626,469
	7 mos.	232	18,357,497	463,314	19,326,734	1,631,865	5,553,864	280,317	5,541,717	13,683,582	70.8	5,643,152	422,110	3,505,859	4,135,870
New York, Chicago & St. Louis	July	1,688	7,821,008	161,594	8,106,849	684,460	916,151	136,623	2,153,056	4,041,989	49.9	4,064,860	1,688,844	1,073,260	1,166,742
	7 mos.	1,688	46,139,664	1,119,367	48,095,985	3,897,991	5,854,171	923,329	14,421,039	26,112,337	54.3	21,983,648	11,035,379	7,378,623	8,092,983
New York, New Haven & Hartford	July	1,844	7,920,883	5,288,202	14,145,555	1,491,191	1,764,676	151,474	4,080,907	8,073,998	57.1	6,071,557	3,802,958	2,852,734	1,432,358
	7 mos.	1,842	50,560,736	27,184,758	84,027,543	8,402,285	11,575,704	901,093	26,917,141	51,526,901	61.3	32,500,642	21,986,043	15,625,760	9,041,712
New York Connecting	July	21	212,881	.....	224,223	96,552	10,418	.....	39,245	147,771	65.9	76,452	31,952	160,102	290,038
	7 mos.	21	1,629,237	.....	1,724,261	398,989	67,248	.....	280,777	758,051	44.0	966,210	650,930	1,098,442	1,888,249
New York, Ontario & Western	July	547	568,389	192,966	809,859	89,860	136,512	19,284	352,150	617,408	76.2	192,451	159,039	105,518	27,626
	7 mos.	547	3,754,069	285,701	4,348,992	488,273	815,097	139,193	2,107,546	3,698,843	85.1	650,149	431,659	99,677	—209,979
New York, Susquehanna & Western	July	262	317,640	36,402	367,152	27,779	29,373	2,097	117,317	189,779	51.7	177,373	146,266	113,648	54,937
	7 mos.	262	1,966,319	237,001	2,313,351	187,308	223,581	17,111	870,497	1,376,964	59.5	936,387	722,711	487,512	434,254
Norfolk & Western	July	2,164	10,635,233	849,568	11,819,534	1,382,581	2,457,032	149,478	2,412,354	6,642,914	56.2	5,176,620	1,197,373	1,720,296	3,359,437
	7 mos.	2,172	71,567,334	3,708,721	77,394,589	8,011,641	16,234,141	1,098,091	16,497,532	43,655,617	56.4	33,738,972	8,630,343	12,015,626	18,298,394
Norfolk Southern	July	733	720,827	29,432	776,778	105,072	71,040	28,303	217,740	449,448	57.9	327,329	176,079	141,144	124,193
	7 mos.	733	4,158,850	105,252	4,405,025	704,794	479,719	196,465	1,345,804	2,906,470	66.0	1,498,555	959,378	761,891	402,175
Northern Pacific	July	6,889	8,920,842	794,396	10,517,680	1,503,909	1,826,440	197,271	2,792,824	6,696,172	63.7	3,821,508	2,163,372	2,442,396	2,519,396
	7 mos.	6,889	51,525,637	3,912,975	60,007,140	8,336,702	12,263,066	1,215,723	18,543,422	42,840,078	71.4	17,167,062	9,485,177	12,063,565	9,646,421
Northwestern Pacific	July	342	411,290	11,809	440,953	110,559	51,496	2,355	156,561	327,824	74.3	113,129	93,866	75,564	6,942
	7 mos.	344	2,333,335	66,775	2,525,644	693,468	359,262	16,868	974,679	2,094,821	82.9	430,823	279,551	164,136	—197,918
Oklahoma City-Ada-Atoka	July	132	123,975	.....	125,032	10,796	5,220	1,101	27,962	49,291	39.4	75,741	47,534	32,035	1,204
	7 mos.	132	669,861	1	679,761	83,739	28,017	7,218	163,753	303,900	44.7	375,861	246,444	165,105	8,394
Pennsylvania	July	10,215	54,819,036	15,016,322	75,013,014	8,730,732	11,460,788	839,501	23,836,167	46,880,516	62.5	28,132,498	16,338,074	14,927,241	9,772,263
	7 mos.	10,215	339,653,803	83,522,388	454,634,875	48,944,114	86,542,628	5,739,912	158,654,366	312,662,765	68.8	141,972,110	68,524,648	59,753,518	52,451,573
Long Island	July	378	1,095,409	2,299,623	3,522,450	368,575	359,473	8,830	1,231,112	2,021,524	57.4	1,500,926	946,502	763,279	267,409
	7 mos.	378	6,393,676	11,758,471	19,045,407	2,428,081	3,081,355	69,046	8,037,711	13,983,855	73.4	5,061,552	2,629,454	1,327,617	720,566
Pennsylvania-Reading Seashore Lines	July	406	422,619	700,942	1,161,690	105,332	104,949	12,397	443,810	686,105	59.1	475,585	329,378	174,048	116,177
	7 mos.	406	2,967,947	1,759,673	4,924,228	692,309	713,514	61,393	2,567,852	4,162,319	84.5	761,909	52,325	—661,069	—816,316
Pere Marquette	July	2,055	3,308,199	255,921	3,772,489	465,271	728,596	72,011	1,254,478	2,646,494	70.2	1,125,995	675,592	582,587	563,792
	7 mos.	2,055	21,688,003	1,020,524	23,795,072	3,026,322	5,009,635	489,730	8,680,529	18,018,601	75.7	5,776,471	3,444,116	3,088,951	3,805,804
Pittsburg & Shawmut	July	97	106,953	.....	107,259	20,797	18,797	1,960	25,884	72,726	67.8	34,533	31,200	30,507	20,885
	7 mos.	97	695,373	.....	699,539	85,067	132,559	13,960	176,958	441,263	63.1	258,276	236,210	215,838	102,857
Pittsburgh & West Virginia	July	136	573,081	.....	590,938	112,239	96,801	20,072	129,190	381,305	64.5	209,633	148,177	141,268	119,828
	7 mos.	136	3,424,899	297	3,549,302	562,543	688,404	136,784	798,884	2,355,095	66.4	1,194,207	872,500	923,337	863,665
Pittsburg, Shawmut & Northern	July	190	99,511	.....	100,833	30,921	27,749	1,016	38,068	103,214	102.3	—2,381	—9,441	—18,485	26,037
	7 mos.	190	862,762	.....	873,247	147,870	204,898	8,305	305,420	705,779	80.8	167,468	119,503	62,561	178,405
Reading	July	1,424	7,821,870	728,724	8,916,703	863,400	1,501,352	72,151	2,743,547	5,351,728	60.0	3,564,975	2,069,840	1,940,798	1,120,609
	7 mos.	1,428	51,221,924	3,655,439	57,370,791	4,624,056	11,206,669	525,337	19,067,744	36,628,363	63.8	20,742,428	12,385,866	10,971,991	9,091,004
Richmond, Fredericksburg & Potomac	July	118	1,287,800	987,655	2,423,316	154,673	189,965	10,700	549,773	973,005	40.2	1,450,311	179,968	78,507	279,444
	7 mos.	118	8,191,337	5,283,606	14,665,033	861,815	1,344,144	74,767	3,786,599	6,585,204	44.9	8,079,829	2,639,155	1,760,328	1,630,757
Rutland	July	407	289,038	47,839	397,699	47,201	71,014	11,108	163,863	305,460	76.8	92,239	70,372	73,769	49,877
	7 mos.	407	1,752,320	258,662	2,432,848	267,185	461,171	74,738	1,112,705	1,998,438	82.1	434,410	293,190	314,768	108,570
St. Louis-San Francisco	July	4,674	5,638,340	1,220,344	7,330,871	702,502	1,272,094	134,188	2,261,173	4,631,233	63.2	2,699,638	2,309,146	2,227,389	1,118,879
	7 mos.	4,752	34,554,805	5,813,104	43,500,702	4,584,200	7,984,111	935,885	14,855,530	30,054,577	69.1	13,446,125	10,554,383	10,714,967	6,217,105
St. Louis, San Francisco & Texas	July	159	332,585	19,400	358,787	28,521	23,979	9,398	90,146	158,118	44.1	200,669	189,689	162,142	61,079
	7 mos.	159	1,576,303	41,837	1,658,601	196,846	155,780	63,537	535,881	993,283	59.9	665,318	593,208	406,770	43,420

Table of Revenues and Expenses Continued on next left-hand page

OURS...and YOURS

WE INVITE you, Mr. and Mrs. America,
to share the honor of the Army-Navy Production Award
with the thousands of our loyal, skillful men
and women working on war orders in the office...
in the plant...and in the field.

SHARE IT with these workers...
you government officials who worked with them
closely, and with whole-hearted cooperation.

SHARE IT with them...you stockholders
who supported the early conversion of our plants
to war work, and approved our first efforts
to help our government.

SHARE IT with them...you men, women and children
who turned in sweat-stained bills...
checks that scraped the bottom of the bank account
...pennies from piggy-banks
...for Victory Bonds and Stamps.

ALL OF YOU gave your time, and effort, and money.

NOW, our government says that we spent well...
creating a tremendous volume
of the arms America urgently must have to win this war.

OUR HONOR is also your honor.
And this flag is also your flag.

UNDER IT, with your help, we intend to fight
the battle of production with still greater energy.

WE RATE it higher, and we'll fly it higher,
than any other flag in the U.S....

...except one.

AMERICAN LOCOMOTIVE

A NATIONAL ARSENAL OF MOBILE POWER

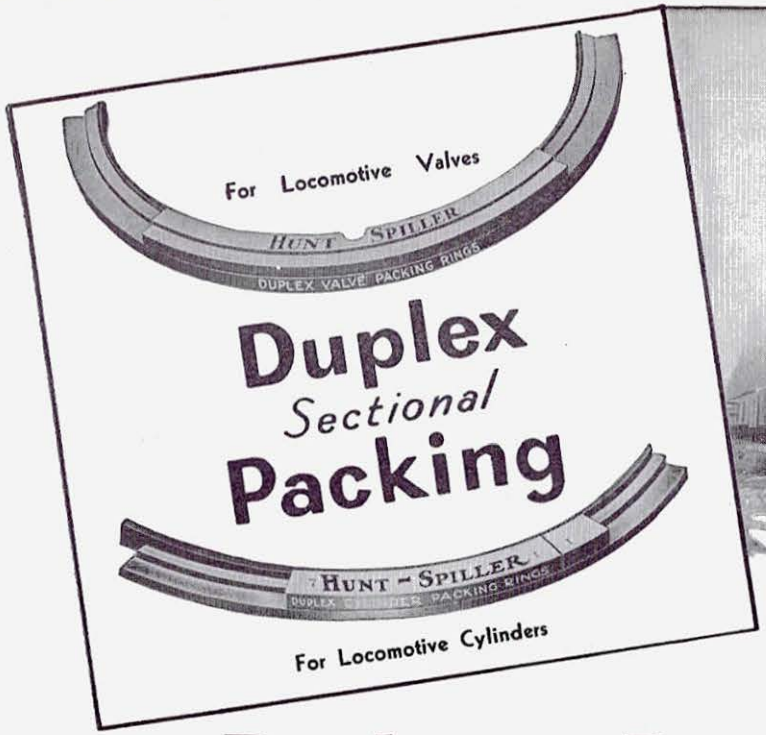
TANKS • GUN CARRIAGES • ARMY AND NAVY ORDNANCE • STEAM AND DIESEL LOCOMOTIVES

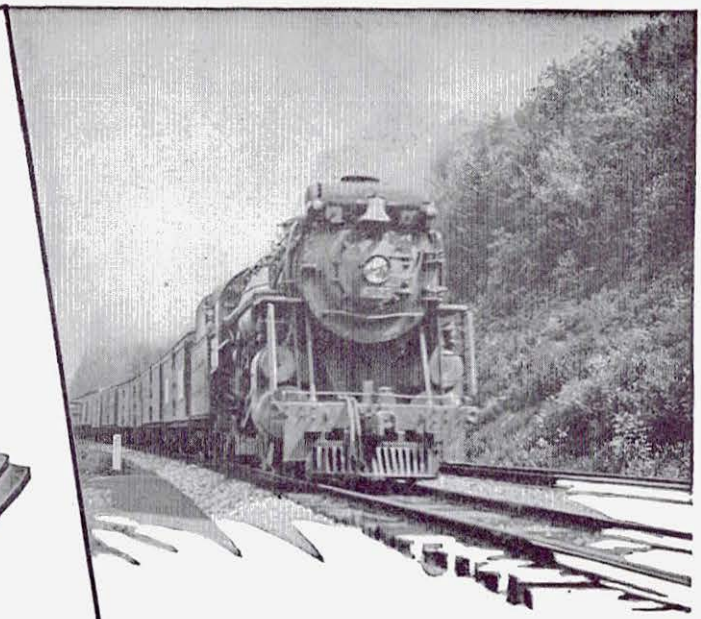
REVENUES AND EXPENSES OF RAILWAYS

MONTH OF JULY AND SEVEN MONTHS OF CALENDAR YEAR 1942—CONTINUED

Name of road		Av. mileage operated during period	Operating revenues: Freight	Passenger	Total (inc. misc.)	Operating expenses: Maintenance of: Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio	Net from railway operation	Operating income	Net railway operating income: 1942	1941
St. Louis Southwestern Lines	July	1,617	$4,505,396	$164,580	$4,763,768	$390,448	$463,462	$98,480	$1,070,056	$2,124,267	44.6	$2,639,501	$1,547,587	$1,161,862	$428,165
	7 mos.	1,617	23,737,352	1,022,047	25,410,811	2,471,958	2,697,044	671,923	6,629,283	13,153,576	51.8	12,257,235	7,426,649	5,541,352	3,460,447
Seaboard Air Line	July	4,244	6,502,790	2,112,887	9,092,474	743,275	1,255,893	198,001	2,611,159	5,142,257	56.6	3,950,217	3,525,217	3,208,440	1,016,451
	7 mos.	4,279	41,120,818	13,062,770	57,482,890	5,974,093	8,553,030	1,432,995	17,711,145	35,935,409	62.5	21,547,481	18,672,481	16,485,264	6,036,665
Southern Railway	July	6,519	13,633,610	3,350,835	17,899,775	1,712,850	2,623,012	187,963	4,639,541	9,666,816	54.0	8,232,959	3,034,349	2,769,765	2,880,389
	7 mos.	6,519	85,480,150	16,213,483	107,775,421	11,326,553	17,437,518	1,328,441	30,626,496	64,031,701	59.4	43,743,720	22,460,115	20,749,391	17,697,667
Alabama Great Southern	July	315	1,485,030	243,702	1,800,396	116,238	236,234	22,569	440,026	853,143	47.4	947,253	249,271	175,801	243,495
	7 mos.	315	8,501,902	1,368,331	10,358,139	772,358	1,513,882	146,585	2,708,136	5,403,660	52.2	4,954,479	1,534,842	1,169,887	1,243,597
Cincinnati, New Orleans & Texas Pacific	July	337	2,224,782	351,221	2,675,196	253,121	478,027	31,980	603,357	1,433,281	53.6	1,241,915	391,780	340,801	597,334
	7 mos.	337	13,880,724	1,804,725	16,390,503	1,659,794	3,239,671	220,908	3,907,620	9,507,794	58.0	6,882,709	2,783,649	2,692,779	3,625,584
Georgia Southern & Florida	July	398	309,911	92,305	428,570	49,820	48,256	2,459	119,519	231,938	54.1	196,632	102,705	79,690	48,498
	7 mos.	398	1,753,815	648,278	2,590,877	381,178	334,468	17,952	819,279	1,632,552	63.0	958,325	543,902	389,070	378,704
New Orleans & Northeastern	July	204	1,018,896	122,303	1,183,116	71,928	78,938	12,336	252,349	440,026	37.2	743,090	412,394	306,008	149,059
	7 mos.	204	5,120,241	826,958	6,212,237	453,682	453,308	76,787	1,495,295	2,646,691	42.6	3,565,546	1,813,157	1,270,027	754,250
Southern Pacific	July	8,416	25,297,066	4,664,447	32,052,292	2,625,537	4,921,208	433,335	9,211,022	18,646,986	58.2	13,405,306	7,420,849	6,252,265	5,521,647
	7 mos.	8,546	151,208,737	25,899,709	190,909,185	16,309,988	31,025,848	2,866,148	60,543,712	119,939,415	62.8	70,969,770	43,276,713	35,215,789	26,287,402
Southern Pacific Steamship Lines	July	.....	463	Dr. 15	1,471	.....	.....	.....	Cr. 2,253	2,646	#	—1,175	—1,279	—1,279	—268,601
	7 mos.	.....	Dr. 1,194	230	2,080	79,136	530	136	20,567	121,181	...	—119,101	—121,407	—121,407	242,480
Texas & New Orleans	July	4,394	7,433,458	1,342,854	9,266,412	958,536	948,630	138,116	2,198,709	4,521,891	48.8	4,744,521	2,604,777	2,153,157	1,055,993
	7 mos.	4,405	42,695,253	5,859,139	51,375,518	6,115,970	6,278,641	971,157	13,436,392	28,624,584	55.7	22,750,934	13,309,540	10,692,428	6,377,508
Spokane, Portland & Seattle	July	930	1,491,806	71,210	1,654,327	162,674	125,364	11,487	482,284	826,287	49.9	828,040	814,317	667,759	289,837
	7 mos.	935	9,262,780	343,864	10,128,310	1,200,219	843,970	80,895	3,025,013	5,430,429	53.6	4,697,881	4,014,674	3,180,444	1,368,530
Tennessee Central	July	286	286,856	16,553	322,859	86,074	48,920	6,171	107,046	261,564	81.0	61,295	38,879	24,907	31,996
	7 mos.	286	2,081,933	67,214	2,266,133	503,088	338,104	48,342	748,569	1,727,662	76.2	538,471	368,685	262,368	255,763
Texas & Pacific	July	1,905	3,601,461	982,934	4,905,724	411,443	656,445	86,513	1,193,111	2,526,538	51.5	2,379,186	1,262,944	1,138,960	501,991
	7 mos.	1,891	18,967,042	4,744,922	25,801,325	2,765,357	4,248,237	587,404	7,253,602	15,999,874	62.0	9,801,451	6,240,558	5,503,461	3,602,158
Texas Mexican	July	162	106,900	472	131,422	21,062	12,689	4,334	54,133	102,664	78.1	28,758	21,661	11,838	33,695
	7 mos.	162	866,754	2,568	1,010,989	146,007	91,448	27,403	290,595	613,616	60.7	397,373	347,187	293,087	170,701
Toledo, Peoria & Western	July	239	311,030	5	314,622	42,138	17,313	20,530	82,934	174,047	55.3	140,575	126,047	107,670	38,296
	7 mos.	239	1,441,707	19	1,464,778	200,868	125,044	129,644	442,644	992,653	67.8	472,125	376,905	276,490	239,141
Union Pacific System	July	9,852	25,930,468	3,802,765	31,683,624	4,330,829	4,819,621	429,558	7,690,349	18,460,671	58.3	13,222,953	6,006,520	5,136,746	2,514,851
	7 mos.	9,863	138,047,996	19,401,906	169,202,404	24,083,275	31,578,056	2,985,893	48,999,277	114,901,397	67.9	54,301,007	25,268,094	20,074,460	10,384,869
Utah	July	111	112,557	.....	112,576	9,217	37,739	515	28,645	80,172	71.2	32,404	26,727	27,991	1,975
	7 mos.	111	737,132	.....	737,572	104,552	226,955	3,248	193,784	558,500	75.7	179,072	97,115	94,021	19,269
Virginian	July	660	1,934,834	9,597	2,011,481	199,782	484,572	25,567	362,280	1,116,498	55.5	894,983	469,983	566,546	706,305
	7 mos.	655	14,928,756	37,299	15,523,881	1,313,831	3,305,447	180,656	2,725,747	7,850,540	50.6	7,673,341	4,065,841	4,379,811	4,531,173
Wabash	July	2,394	6,399,033	577,969	7,306,912	751,708	847,717	160,017	2,193,916	4,208,216	57.6	3,098,696	1,389,041	831,848	999,246
	7 mos.	2,396	36,523,648	2,794,647	41,616,068	4,539,581	5,338,055	1,122,923	13,937,838	26,315,591	63.2	15,300,477	8,048,098	5,155,933	5,336,433
Ann Arbor	July	294	418,754	5,704	445,619	42,620	80,927	14,444	165,896	318,894	71.6	126,725	67,792	53,538	77,155
	7 mos.	294	2,863,331	22,742	2,961,944	286,765	568,621	105,244	1,218,113	2,270,456	76.7	691,488	369,992	264,977	377,075
Western Maryland	July	859	2,699,748	28,254	2,802,836	335,516	584,254	42,898	683,959	1,717,156	61.3	1,085,680	640,680	641,713	503,315
	7 mos.	859	16,311,767	101,463	16,857,503	1,750,251	3,687,586	316,566	4,459,615	10,690,238	63.4	6,167,265	3,652,265	3,761,932	3,342,797
Western Pacific	July	1,195	2,719,598	184,166	2,990,501	320,676	359,873	77,496	934,764	1,779,669	59.5	1,210,832	815,597	694,012	298,267
	7 mos.	1,195	17,008,546	964,808	18,458,328	1,974,834	2,511,776	529,691	6,307,312	11,863,401	64.3	6,594,927	5,471,515	4,563,547	1,416,493
Wheeling & Lake Erie	July	507	2,102,452	.....	2,224,615	292,258	322,385	39,141	593,038	1,292,455	58.1	932,160	123,792	270,443	356,628
	7 mos.	507	12,823,110	7	13,478,784	1,716,394	2,311,990	283,345	3,874,250	8,458,173	62.8	5,020,611	619,802	1,612,931	2,357,435

S. P. S. S. Lines # (Operating ratio)—Operations ceased with delivery of ships to U. S. Maritime Commission during June and July, 1941.





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This high mileage is due to the Duplex design which assures maximum wear without breakage and a special heat treated spring which holds the rings tightly against the walls of the valves and cylinders.

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Pistons or Piston Bull Rings
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Crosshead Shoes
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Dunbar Sectional Type Packing
Duplex Sectional Type Packing
for Cylinders and Valves
(Duplex Springs for Above
Sectional Packing)
Cylinder Snap Rings
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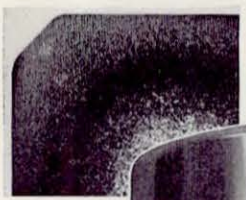
On all Ex-Cell-O Railroad Pins and Bushings heat-treatment is a *precision* job, carried out by experts in Ex-Cell-O's modern heat-treat department. Depth of case is standardized at from $^{3}/_{64}$" to $^{1}/_{16}$" minimum. This is one of the reasons why Ex-Cell-O Pins and Bushings assure increased mileage between shoppings; why railroads using them are finding much less need today for the replacement of parts.



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Railroad Division

EX-CELL-O CORPORATION

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Non-slip

RUNNING BOARDS

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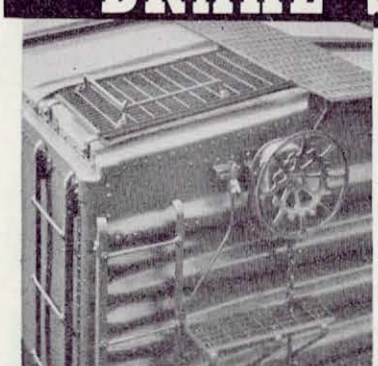

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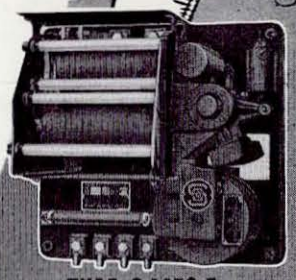
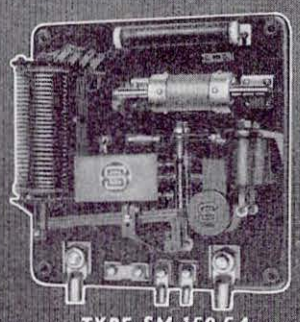


TYPE S 1050 E

TYPE S 30 EADR



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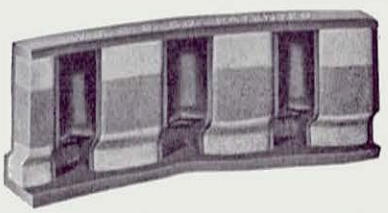

FOR INDEX

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By Ralph P. Johnson, M. E.
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